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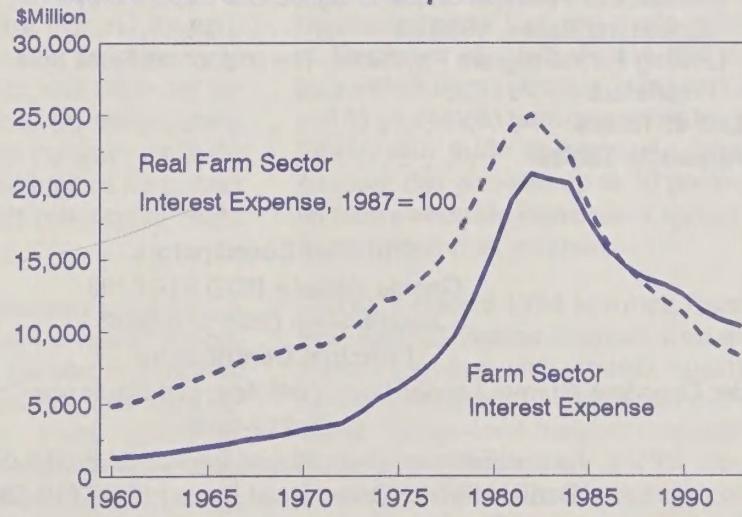
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Agricultural Income and Finance

Situation and Outlook Report

Farmers Reduce Interest Expenses



Annual Lender Issue

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Summary

Financial institutions serving agriculture experienced stable to improved conditions in 1993, and some modest additional gains are expected in 1994. The position of farm lenders in 1993 reflected the overall improvement in farmers' finances in recent years. Total farm debt (excluding households) at yearend 1993 is estimated at \$141.4 billion, up 1.5 percent from a year earlier, but 27.1 percent below the 1984 peak of \$193.8 billion. Farm debt increased an estimated \$2.1 billion during 1993 and commercial banks with a 4.2-percent increase in loan volume were the leading farm lender category.

A decrease in net farm income and modest growth in asset values in 1993 mean that farm borrowing is forecast to rise only 1-2 percent in 1994. This will be the fourth annual increase after 6 successive years of net debt retirement. Since 1990 farmers have added to their debt, but very cautiously, with total debt increasing only 2.9 percent by the end of 1993.

The delinquent share of loan portfolios was largely steady to down at mid-1993. Commercial banks and life insurance companies experienced small seasonal increases from yearend 1992, but the Farm Credit System (FCS) rate declined. The Farmers Home Administration (FmHA) loan delinquency rate decreased from 46.1 percent at midyear 1992 to 41.0 percent a year later. Loan chargeoffs were negligible for commercial banks and the FCS. FmHA chargeoffs, at \$1.8 billion, were down 6.3 percent from the previous year.

Adequate credit is available, except for certain types of farm borrowers, such as beginning farmers, who are generally considered higher risk and may be less able to obtain credit. Farmers remain careful about acquiring additional debt. All lenders categories continued to report that demand for agricultural credit was not strong in 1993, while the capacity to lend remained relatively high. Loan-to-deposit ratios for agricultural banks inched up to 60 percent in September, compared with 58 percent a year earlier. This compares with the low of 53 percent in 1987 and the record high of 68 percent in 1968. The loan-to-deposit ratio for all commercial banks in mid-1993 averaged 78 percent.

The 1993 Midwestern floods and Southeastern and Mid-Atlantic drought created financial problems for many farmers. The decline in farm income that some farmers experienced due to the adverse weather has translated into increased demand for certain classes of farm loans. Farm lenders are helping customers in affected areas cope with loan repayment shortfalls with various types of forbearance and loan servicing options. Moreover, as of January 5, 1994, USDA had provided \$1.1 billion in direct disaster emergency assistance to nine Midwest flood States. In some local areas another year of bad weather could be a major problem for certain farm borrowers and would ultimately affect some farm loan portfolios, particularly in local banks.

Compared with 1992 averages, interest rates on new agricultural loans declined about 60 basis points for nonreal estate and 43 basis points for real estate. The average interest rate on all outstanding farm debt declined from the 1982 high of 11.0 percent to an estimated 8.1 percent in 1993. Interest rates in new loans are widely expected to increase modestly in 1994, more so for nonreal than real estate loans.

Agricultural banks posted another profitable year, surpassing their 1992 performance. Their annualized mid-1993 performance indicates a rate of return on assets (ROA) of 1.4 percent, a slight increase over their strong 1992 results of 1.3 percent. Rate of return on equity (ROE) rose to 13.7 percent, also exceeding the 1992 record. Loans in nonperforming status at agricultural banks remained at 1.4 percent of total loans as of midyear 1993.

Direct FmHA lending during fiscal 1993 was \$673 million, down \$42 million from the previous year, and 88 percent below fiscal 1985. Outstanding principal on direct farm loans declined \$1.9 billion from mid-1992 to mid-1993 and is 49 percent below its mid-1985 level. The decline is due to reduced lending volume, loan restructuring, and loan writeoffs. These activities also reduced FmHA delinquent loans, which totaled \$4.4 billion at midyear 1993, down 50 percent from 5 years earlier. Total outstanding FmHA direct loans of \$14.0 billion were the lowest since 1978. Guaranteed lending accounted for 68 percent of new loans in fiscal 1993, up from 19.8 percent in 1985.

Regulations for the FmHA beginning farmer and rancher programs were finalized by September 30, 1993, and the first beginning farmer loan was made immediately thereafter. As of December 31, 1993, FmHA had made 201 direct and 57 guaranteed farm operating loans and an additional 77 direct and 85 guaranteed farm ownership loans to beginning farmers. FmHA also made to beginning farmers 10 loans under a program that provides up to 30 percent of the downpayment on farm ownership loans, and 7 special assistance loans under its operating loan program.

The FCS entered 1994 in strong financial condition. While loan volume remains stagnant, loan quality continues to improve. Earnings and earnings quality remain strong. The system continues to build capital and reduce nonperforming assets. Direct-level mergers continue: The Jackson Federal Intermediate Credit Bank (FICB) merged into the Columbia district, the Louisville district merged into Agribank (itself created by the 1992 merger of the St. Louis and St. Paul districts), and the Spokane and Omaha districts are scheduled to merge on March 31, 1994. Assisted districts continue to recover and by the end of March all will have prepaid their Federal assistance provided following the difficulties of the early 1980's. In response to stagnant loan volume and its strong capital position, the system is seeking expanded powers from Congress.

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Farm Sector Growth Slow, But Steady

Nature was unkind to many farmers in 1993. The outlook for 1994 calls for further modest growth in the overall farm economy, but experiences may vary among regions and commodities.

Flood and Drought Raise 1993 Cash Income, Lower Net Farm Income

The Midwest floods and the Southeast and Mid-Atlantic drought skewed the distribution of 1993 incomes for U.S. farmers and ranchers. While producers directly affected by these disasters likely saw lower net cash incomes in 1993, those outside the disaster areas will benefit from higher crop prices. U.S. cash receipts for crops in 1993 are estimated down only 1-3 percent, as sales of the previous year's crops largely offset lower receipts from 1993 crops. Livestock receipts are forecast up due to strong cattle, hog, and broiler prices.

Much of calendar 1993's crop receipts comes from sales of 1992-93 crops. Nearly 60 percent of corn and 50 percent of soybeans are usually marketed in the calendar year following harvest. This means sales of 1992's record crops partially offset a lower level of sales of 1993's reduced crops. The reduced level of 1993-94 crop production will affect 1994 cash incomes more than those for 1993. Government payments were up nearly 20 percent in 1993. Most direct Government program payments to feed grain producers are made during the first half of the year. This was before the weather-related impacts on production and prices.

Cash expenses for 1993 are forecast up only 1-2 percent, about the same percentage increase as in gross cash income. This will leave U.S. net cash income of around \$59 billion, 2-4 percent higher than in 1992, which was a record year. Net farm income is a better measure of profitability than net cash income because it adjusts for inventories carried in from previous years. For 1993, net farm income is forecast at \$44 billion, down nearly 10 percent from 1992. The floods and drought significantly affected 1993 inventories of corn and soybeans, which could have been reduced by \$3 billion.

With 1994 gross cash income forecast up 2-5 percent, the increase in expenses will leave net cash income of \$58-\$66 billion, compared with 1993's forecast \$59 billion. Net farm income, however, should rebound from its 1993 drop. While 1993 adjustments to inventories were negative, positive inventory adjustments for 1994 could add \$3-\$7 billion to total farm income. If this occurs, and a lot depends on this year's crops which are as yet unknown, net farm income could range from \$50 to \$58 billion in 1994, exceeding 1992's record \$48.6 billion.

Limited Balance Sheet Growth

The value of U.S. farm business assets are estimated to have risen \$16.5 billion during 1993 to \$878 billion, an increase of less than 2 percent. Total assets are forecast to rise to

between \$895 and \$905 billion in 1994, as the growth rate in asset values increases to the 2- to 3-percent range. These sustained moderate increases in asset values may reflect a long-run stabilization of the agricultural economy, and a favorable outlook for the future. However, the real value of farm assets is projected to decline in both 1993 and in 1994, as the general rate of inflation is anticipated to exceed the growth in asset values.

The value of farm real estate is projected to rise slightly more than 2 percent in 1993. The relatively stable total farmland value suggests that high cash income levels, even in the presence of favorable interest rates, have not dramatically increased farmers' desire to expand operations and thereby bid up land prices. Real estate appreciation in 1994 is expected to be 2 to 3 percent. Nonreal estate asset values are forecast to rise about \$7 billion in 1994, exceeding 1993's gain of \$1.6 billion. Livestock inventories are expected to account for over 40 percent of the increase. The value of machinery on farms is expected to rise slightly in 1994, as purchases of tractors and combines likely rose in 1993 and are expected to rise in 1994.

Total farm debt is anticipated to increase 1 to 2 percent during 1994. Debt is projected to have risen over 2 percent in 1993, marking the fourth consecutive year of increased farm indebtedness. The slight rise in 1990 ended a 5-year run of annual debt reductions. Stable land values and the healthy cash income of farm borrowers are easing lenders' concern over potential loan defaults.

The 2- to 3-percent increase in farm assets and the 1- to 2-percent rise in debt indicates that farm business equity should increase about 3 percent in 1994 to about \$755 billion. This compares with a 1.7-percent increase in 1993. While 1994's moderate equity gain reflects a relatively stable farm economy, it is projected to mirror the general rise in prices of about 3 percent. As a result, the real (1987\$) equity level is forecast to be unchanged during 1994, while asset and debt levels will experience slight real declines. The farm business debt-to-asset ratio will be virtually unchanged at .16, but this is down from the .23 registered in 1985.

The real value of farm assets in 1994 is virtually the same as in 1962. However, during this 32-year period, the inflation-adjusted level of farm debt has increased almost 15 percent. Real farm equity has generally trended downward since peaking in 1980, and is projected to be more than 1 percent below its 1962 level at the end of 1994. Unchanged asset values, coupled with a higher debt load, suggest that U.S. farming will be operating with higher fixed costs, and, consequently, a less flexible financial structure at the end of 1994 than over 30 years earlier.

The farm sector's financial indicators have shown improvement in recent years. Total farm debt is lower and increasing only modestly, equity is growing, the debt load relative to income is lower, farm income has recovered, and the debt to asset ratio and total rate of return have come back to more normal levels.

Figure 1
Total Farm Debt Increasing Modestly
\$billion

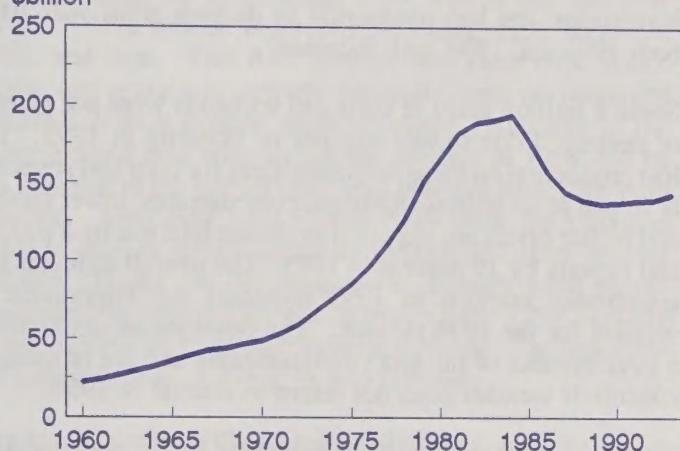


Figure 2
Annual Change In Farm Debt
\$billion

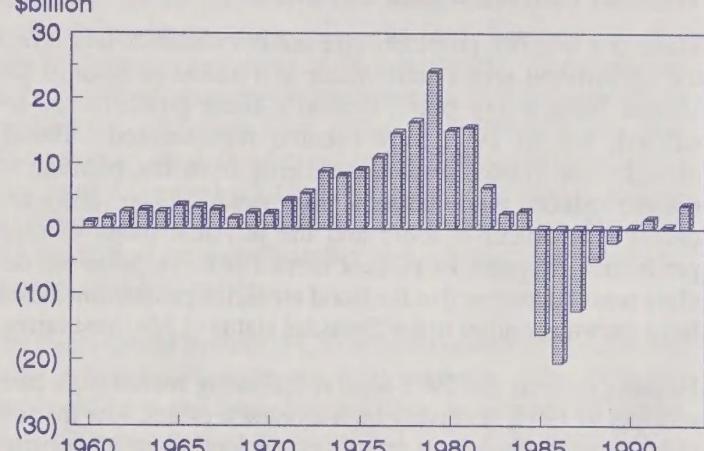


Figure 3
Farm Sector Balance Sheet
\$billion

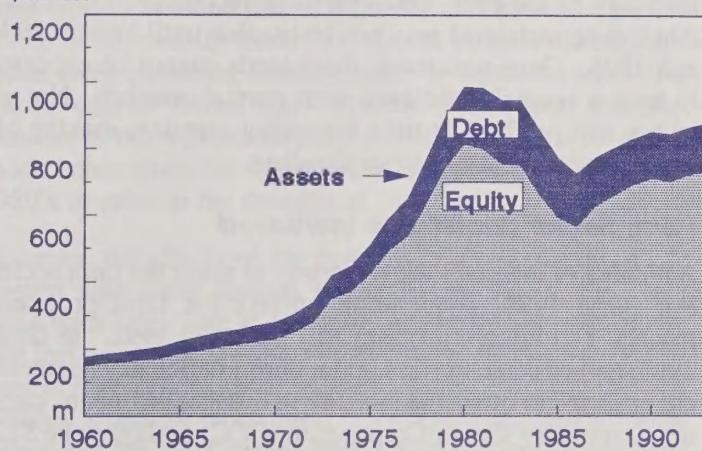


Figure 4
Farmers Reduce Debt Load
Ratio

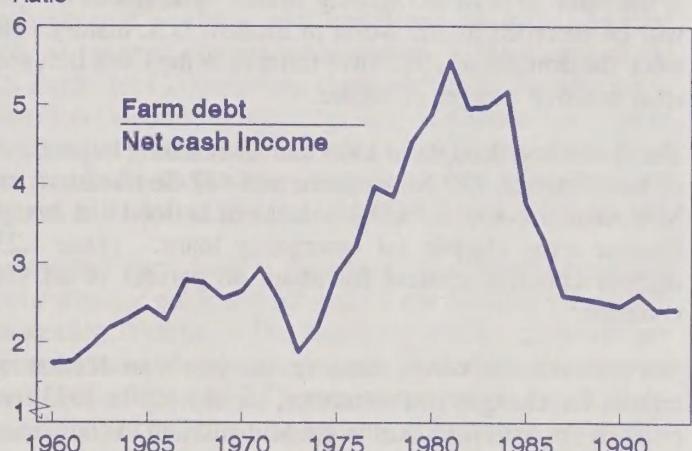


Figure 5
Real Net Farm and Net Cash Incomes
Return to Historical Levels
\$1987 billion

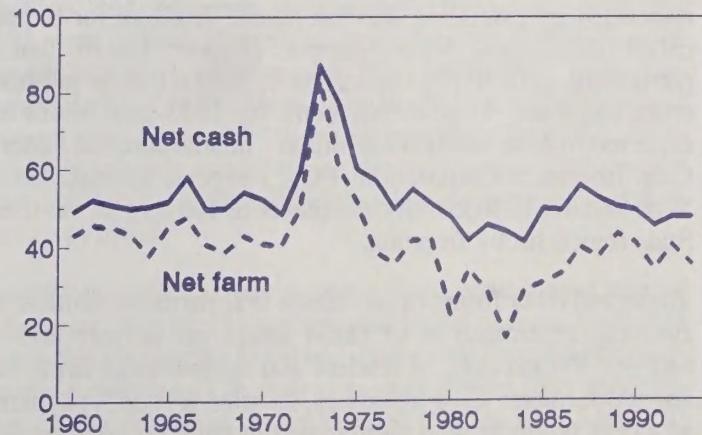
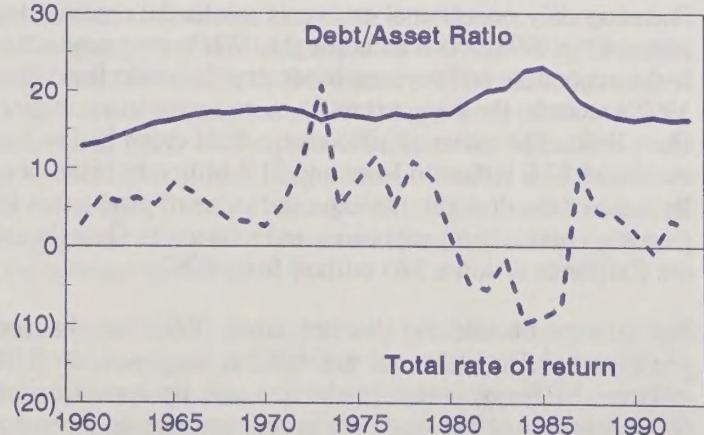


Figure 6
Farm Sector Debt to Assets and Total Rate of Return Approach More Normal Levels
Percent



Weather a Major Factor

Floods and drought created financial winners and losers in the farm sector in 1993. Some regional concerns exist for 1994.

Weather Causes Mixed Situation

There are weather problems and natural disasters that affect the agricultural sector somewhere in a nation as large as the United States every year. Typically, these problems are localized, but in 1993 they became regionalized. Flood, drought, and related problems ranging from late planting to disease reduced many farmers' crop yields. Crop values declined 4.3 percent in 1993 and the physical index of crop production dropped 14 percent from 1992. Because the decline was concentrated in the flood areas, the production losses have drawn attention to the financial status of Midwest farms.

Farmers entered the 1993 season following record high cash receipts in 1992, relatively high livestock prices, low interest rates, several new export promotion packages, and an improving global economy. The farm economy was showing stability and appeared ready to continue a slow but steady path toward financial improvement. But a major drought occurred at the same time as devastating floods. The floods of 1993 will be recorded as the worst in modern U.S. history. Not since the drought of 1988 have farmers in the Corn Belt seen such massive ravages of nature.

The floods and drought of 1993 had far-reaching impacts. As of late October, 739 Midwestern and 497 Southeastern and Mid-Atlantic counties had been declared as flood and drought disaster areas eligible for emergency loans. These 1,236 disaster counties account for about 40 percent of all U.S. counties.

Net farm income, which measures the year's production and adjusts for changes in inventories, should fall in 1993, particularly for hard-hit States in the Midwest and in comparison with the previous year's record crops. On the other hand, net cash incomes could rise, even for the States most affected by flooding. Crop prices are up for unaffected farmers, livestock receipts are higher, and government support is up.

Focusing only on national estimates masks the regional impacts of the 1993 floods and drought. While crop production in the major corn and soybean producing States declined from 1992's records, the impact is much more severe in the western Corn Belt. The value of 1993 major field crops is down an estimated \$2.0 billion in Iowa and \$1.1 billion in Minnesota. Because of the drought, the expected value of production for peanuts, cotton, corn, soybeans, and tobacco in Georgia and the Carolinas is down \$80 million from 1992.

For farmers outside the disaster areas, 1993 was be very productive. The value of the Indiana crop was up \$300 million. In Texas, cotton production was up approximately 60 percent from 1992, and corn production was up 7 percent. As a result, the value of production for Texas' 1993 cotton, rice, peanut, sorghum, and soybean crops is up \$300 million

from 1992. Due to marketing patterns and selling of current inventories, the lost production in disaster areas will affect both 1993 and 1994 cash incomes.

Some 8 million acres of corn and soybeans were not planted or destroyed due to wet weather or flooding in 1993. The lost production on these and other acres for corn and soybeans is valued at \$5 billion. Reduced corn supplies, lower quality, and higher prices are expected to reduce feed use by 8 percent and exports by 19 percent in 1993. The overall tightening in commodity markets in 1993 increases the importance of weather for the 1994 outlook. The flood losses could affect a large number of farmers simultaneously and are of national concern if weather does not return to normal in 1994.

Nearly 13 million acres were inundated in the nine flood-affected States (appendix figure 1). In addition, excessive rains affected 40 million acres of highly erodible cropland, many of which suffered severe erosion. Some of the affected cropland may be too badly damaged to be reclaimed. Other land that can be reclaimed may not be useable until later in 1994 and 1995. Once reclaimed, these lands cannot be expected to have a normal yield even with normal weather. Not all levees will be fixed in time for spring planting, making affected land subject to further flooding.

Farm Sector Assistance Increased

A number of measures are underway to assist the farm sector. For fiscal 1993, government outlays for farm programs reached \$16 billion, up from \$10 billion in 1992. In fiscal 1994, higher market prices and reduced deficiency payments are expected to offset the increase in disaster payments, causing Commodity Credit Corporation (CCC) outlays to be \$12-\$14 billion.

In August 1993, Congress responded to problems caused by extensive flooding and drought with an additional \$2.3 billion in funding for disaster payments for farmers. USDA also responded by extending the enrollment deadline for the so-called 0/92 option, a price-support program feature that is particularly attractive to farmers hit by a total loss on program crops like corn. Disaster payments for 1993-crop losses are expected to total nearly \$2.6 billion. In addition, the Federal Crop Insurance Corporation (FCIC) expects to make some \$700 million in indemnity payments to farmers in the nine-State region hit by flooding.

These and other forms of assistance will partially cushion the financial repercussions of flood losses on farmers and--in turn--on the network of lenders and agribusiness firms that support farmers. Crop insurance, disaster, and 0/92 payments to a corn producer who participated in the corn program, has crop insurance, and did not harvest a crop in 1993, are esti-

mated to cover about 90 percent of pre-flood gross income. As of January 5, 1994, the USDA had provided over \$1,083.3 million in direct disaster emergency assistance to nine Midwest flood States. This includes \$1,044.8 million in ASCS disaster assistance payments and FCIC indemnities plus other types of aid.

With regard to commodity programs, since acreage reduction programs (ARP's) were first authorized in the 1981 farm bill and began with the 1982 crops, 1994 will be the first year that the ARP's will be 0 percent for wheat, corn, sorghum, barley, and oats. The ARP change will raise farm sector income and economic activity generally with an estimated additional 5 to 6 million acres planted. Producers in the Midwest flood area who are unable to plant in 1994 will be able to enroll in the 0/85/92 program and will have their base protected. Also, new 1994 USDA rules could help farmers unable to plant in 1993 because of flooding and other weather disasters. Under the old rules, some farmers were denied "prevented planting payments" because their 1993 planting intentions differed from their historical record. The new rules will take this type of situation into account.

Lender Reactions Generally Positive

The crosscurrents of farm stress and prosperity are of concern to some lenders. The aggregate data show that commercial lenders and farmers in affected areas entered the drought and flood periods in sound financial condition. The overall picture is one of cleaned-up lender and farmer balance sheets, high profit margins, strong lender capital, low interest rates, low loan-to-deposit ratios, and favorable interest rate margins. Lenders in the weather-affected regions entered 1993 with a much better financial footing than during the early to mid-1980's or prior to the drought of 1988.

However, the effects of the floods on farm banks should be viewed with some caution because some banks, especially those with large loan portfolios concentrated in flood areas, will feel a significant impact--particularly for institutions that were in a weak position prior to the floods. Consider the case of Iowa, where all 99 counties were designated disaster areas because of the 1993 excess rains. Every 2 years Iowa State University surveys Iowa farmers to determine their financial well-being. The 1993 Iowa Farm Finance Survey of 1,125 farm families gathered 1992 data that showed 22 percent were in a weak to severe financial condition based on profitability, liquidity, and solvency. (Comparable figures for 1986 and 1991 were 31 and 15 percent, respectively.) Some 30 to 40 percent would experience cash flow problems if 1993's income equaled 1992's. Until 1991 the financial condition had been growing stronger. There thus are farmers in the flood-affected areas who could be put out of business by the added financial stress, but the individual cases are scattered and vary greatly in detail.

The Minneapolis Federal Reserve Bank conducted a special poll during July of 113 agricultural banks in areas known to have been affected by flooding. Half of all respondents characterized crop losses in their area as extensive. Respondents thought that substantial numbers of farmers would have to liquidate assets or restructure debts because of weather-related losses. About two-thirds of the bankers polled estimated that

some to many farmers would be forced to take such action. But they thought that relatively few farmers would be forced to completely liquidate their operations. Several noted in written comments that 2 consecutive years of adverse weather have removed any margin of financial safety that many farmers had, and that, if conditions do not improve in 1994, there will be substantial numbers of farm failures in their communities.

The strong capital position at farm banks should enable them to absorb moderate losses and allow them flexibility to deal with the financial problems of their customers. Many bankers in the flood-affected region are assisting their customers via forbearance, including loan payment deferments and loan restructuring. Bank regulators have said they will not criticize banks that relax payback terms for stressed borrowers as long as ultimate payback capacity exists. Banks must document that the lack of farm profitability was a 1-year aberration and not part of a loss pattern.

The Farm Credit System (FCS) is addressing the drought and flood problems via loan servicing options. The FCS has recovered from the financial problems it experienced during the 1980's and is well positioned to defer debt payments of thousands of borrowers suffering from weather induced problems. The large size of most FCS lenders enables them to spread risk. The disaster assistance programs of the Columbia, Omaha, and AgriBank Farm Credit Banks emphasize flexibility and working with customers on a case-by-case basis. A range of options are available. CoBank, one of the FCS Banks for Cooperatives, made a \$50,000 contribution to assist flood victims. It estimates that only about 2 percent of its customers in flood-stricken areas reported significant flood damage. Some cooperatives may have reduced earnings and CoBank will address any special needs on an individual basis.

Commercial farm lenders also have used the existing and special disaster programs offered by the Farmers Home Administration (FmHA). The following FmHA programs are important in addressing the disaster problem: (1) emergency physical loss loans, at 3.75-percent interest, to repair or replace damaged buildings, equipment, or livestock, with terms up to 40 years. Farmers may apply for up to \$500,000 per disaster; (2) emergency production loss loans to cover crop losses, at 3.75 percent for up to 20 years. Loans can be made to cover 80 percent of losses over 30 percent, but the total of physical and production loss loans cannot exceed \$500,000 per disaster; (3) interest assistance buy-downs. The interest rate on guaranteed FmHA loans may be reduced by as much as 4 points if it would help a farmer to cash flow his or her loans; and (4) primary loans servicing, which could result in restructured loans with payments deferred for 5 years, or even up to \$300,000 in loan forgiveness. FmHA also provided personnel for FEMA's Disaster Assistance Centers and sent "jump teams" into affected areas to take loan applications from affected farmers.

Continued bad weather could place a number of farmers under severe financial stress, affecting farm loan portfolios 12-18 months from now. This could result in nonperforming loans on the commercial lenders' books and examiners could end up classifying these loans.

Improvement Continues in 1993

Farm lenders' portfolios benefit from their sound management and the sustained recovery of the farm sector from the financial stress of the 1980's.

The financial condition of agricultural lenders was stable or slightly improved in 1993, and some modest additional gains are expected in 1994. Each of the four major institutional farm lender categories--commercial banks, the Farm Credit System (FCS), the Farmers Home Administration (FmHA), and life insurance companies--faces unique challenges, but is in a stronger financial position than during the mid-1980's. Most borrowers remain careful about taking on new debt for expansion. Consequently, farm debt is expected to increase only 1-2 percent in 1994. With moderate loan demand and improved loan portfolios, agricultural lenders are focusing on maintaining or increasing market share via high-quality loans.

Lenders Strengthen Position

The position of agricultural lenders in 1993 reflected the overall improvement in the finances of farmers in recent years. Except for the FmHA, all major institutional lender groups continued to experience lower delinquencies, fewer foreclosures, declining net loan chargeoffs, and far less loan restructuring than in the mid-1980's. Although some improvement continues, the general pace of working down delinquencies has slowed. As financial stress declined, financial indicators have approached more normal historical levels, although some have stabilized at levels above those prior to 1980.

Demand for Credit Is Moderate

All lender categories continued to report that demand for agricultural credit was not strong in 1993, while the capacity to lend remained relatively high. Agricultural commercial banks continued to have ample lending capacity as indicated by low loan-to-deposit ratios. FCS long-term real estate loans outstanding decreased only 0.02 percent during the year ending September 30, 1993, reflecting constant demand for mortgage credit. FmHA made direct operating loans during fiscal 1993 of \$545.2 million, down 4.5 percent from fiscal 1992. Total FmHA direct obligations (operating, ownership, emergency) decreased 5.9 percent from 1992, to \$670.6 million. Some \$637.9 million was moved to the new Beginning Farmer Ownership Program from guaranteed farm operating loans, but few loans have been made under this new program.

Among life insurance companies still actively pursuing agricultural investments, total lending activity was down 2.2 percent during 1993. Outstanding loan volume at the end of 1993 was 29.9 percent below the 1981 peak for the industry. A small share of this decline reflects the sale of loans to Farmer Mac. Total loan volume of commercial banks and the FCS increased in 1993. Commercial banks posted volume gains of \$3.6 billion, or 7.0 percent, for 1993. The FCS reported total loans outstanding of \$53.3 billion on September 30, 1993, 1.7 percent above a year earlier. FmHA total lending decreased 9.6 percent in 1993 and total farm loans outstanding

at yearend were 50.2 percent (\$16.0 billion) below the peak volume reported in 1985.

Farm Interest Rates Decline

Interest rates on farm loans declined in 1993 among the major agricultural lenders. Rates on new farm real estate loans declined about 43 basis points while those on new nonreal estate farm loans declined about 60 basis points from 1992. The average interest rate on all outstanding farm debt declined from 11.01 percent in 1982, its highest level since 1960, to an estimated 8.12 percent in 1993. Interest rates on new farm loans are expected to increase slightly throughout 1994. This will be more so for nonreal as opposed to real estate loans.

Lender Health Improves

The financial health of the FCS and commercial agricultural banks continues to improve. FCS net income through the third quarter of 1993 was \$971 million, up 38.3 percent from a year earlier. The FCS income before taxes, extraordinary items, and cumulative effect of changes in accounting principles was \$993 million for the 9 months ended September 30, 1993, up 17.9 percent from the corresponding period in 1992. FCS net interest margin for the first 9 months of 1993 increased to 3.16 percent, compared with 2.84 percent a year earlier.

Agricultural banks reported higher average returns on equity and assets for the year ending June 30, 1993, and very low rates of net loan chargeoffs. Agricultural bank loan loss provisions dropped in 1993, reflecting improved expectations of future loan loss rates. The performance of agricultural banks continues to approach or exceed conditions common before the farm financial problems of the early 1980's.

FmHA continues to work through its backlog of delinquent direct loans. Delinquent loans at mid-1993 were down 14.9 percent from the previous year to \$4.4 billion. Loan restructuring continues in the FmHA farm loan portfolio but at a lower rate. FmHA issued new regulations in fiscal 1992 regarding restructuring in response to the 1990 farm bill. FmHA had been unable to respond to new applicants for restructuring since passage of this bill until new regulations were issued in April 1992. FmHA loan writedowns, writeoffs, and debt settlements of \$1.1 billion were approved through September 1993, down 32.9 percent from the previous fiscal year. During fiscal 1989-93, \$11.0 billion in FmHA loan writedowns, writeoffs, and debt settlements were approved.

Lenders report strong competition for high-quality farm loans. Loan-to-deposit ratios inched up to 60.0 percent for agricultural banks in the year ending September 30, 1993 from 58.0 percent a year earlier, but surveys of bankers still indicate the ratios are below desired levels.

Cautious Optimism Overall for 1994

Farm lenders' loan portfolios strong except for isolated cases.

Farmers Could Manage Additional Debt

Slightly higher interest expenses in 1994 should not dramatically strain farm businesses, as farmers should have adequate net cash income to fully meet their debt repayment obligations. It appears that farm operators are positioned to safely use additional credit. In research designed to determine the extent to which farm operators are using their capacity to borrow, studies at ERS suggest that net cash income from farm operations is at a level that could support additional farm debt.

Generally, one of the most influential criteria in lenders' evaluations of loan applicants' credit capacity is the amount of borrowers' income that is available for debt repayment. In applying debt coverage ratios to determine credit limits and maximum loan amounts, lenders effectively require that no more than 80 percent of income available for debt repayment be used for loan principal and interest payments. Lenders then use this maximum loan payment to determine the maximum loan that the borrower qualifies for, given the appropriate loan term and the current market interest rate.

Considering net cash income from farm operations (net cash income plus interest expense) as an appropriate proxy for income available for debt repayment, ERS researchers have analyzed farm operators' use of their debt repayment capacity since 1970. Applying a debt coverage ratio to net cash income from farm operations for each year, the maximum principal and interest payment was determined. The maximum debt that could be serviced by this loan payment was estimated at prevailing market interest rates for a 7-year repayment term. This maximum debt can be thought of as the largest volume of credit that the farm sector could obtain in a given year. For the actual level of farm assets, a comparison of the actual

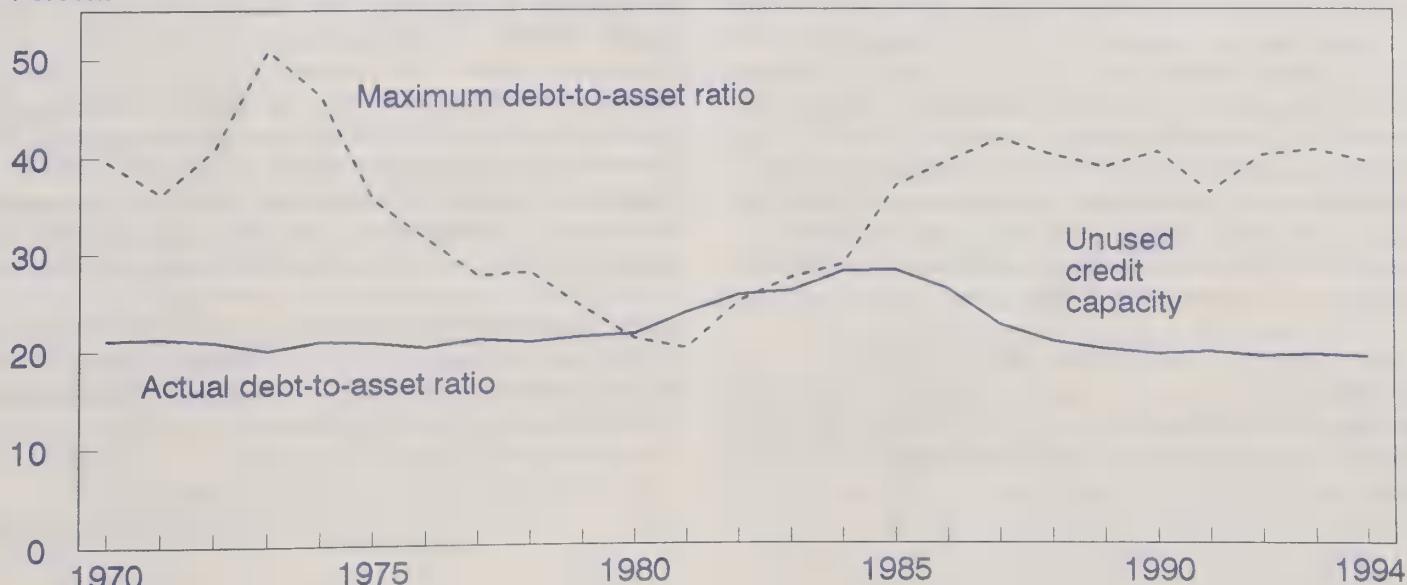
farm debt-to-asset ratio with the maximum debt-to-asset ratio that could be supported by the available income provides insight into farmers' use of credit capacity.

Results of this research indicate that farm operators rapidly exhausted their debt repayment capacity during the late 1970's. In 1980-82, the actual debt owed exceeded the amount that operators could service with the income their farms were then producing. While this was partially due to prevailing high interest rates at the time, those farm operators who borrowed to expand found themselves saddled with a critical mass of excessive debt. This problem farm debt worked itself out during the restructuring that took place over the remainder of the 1980's. Incomes in the mid- to late 1980's supported a higher level of debt, but, as land values declined and heavily indebted farmers experienced loan payment problems, lenders were reluctant to extend new credit secured by farmland. The rise in bank real estate lending during this period was largely due to banks requiring additional security to roll over existing short term debt.

Entering the mid-1990's, one of the more positive farm sector economic indicators is derived by comparing the actual debt-to-asset ratio with the maximum debt-to-asset ratio supportable by the current level of net cash income from farm operations. While total farm sector debt is about one-half that which could be repaid from current income, it also appears that debt could rise about 20 percent without producing an uncomfortably high sector debt-to-asset ratio. This is not to suggest that farmers should again dramatically expand their borrowing, but only to indicate that the farm sector appears to have the capability to safely acquire additional debt. This indicates that the sector is better financially positioned to absorb short- term regional losses, such as those occurring in 1993, than it would have been 8 to 10 years ago.

Figure 7--Farm Borrowing Is Below Estimated Credit Limits

Percent



Farm Credit Access Adequate for 1994

Total farm debt should increase in 1994. Demand for farm loans continues to be moderate.

A 10-percent decrease in net farm cash income and modest asset growth for 1993 mean that farm borrowing is not forecast to rise substantially in 1994. U.S. farm asset values (excluding operator households) rose \$16.5 billion (1.9 percent) in 1993 and are expected to rise 2 to 3 percent in 1994 to \$895-\$905 billion. These modest changes suggest a stable farm economy in terms of nominal dollars with the 3-percent increase in equity being matched by the general economy's price level. But the real value of farm assets is projected to decline once again in 1994 as the general inflation rate is expected to exceed the nominal growth rate in asset values.

Farm Debt Increasing

Total farm debt should increase 1-2 percent in 1994. This will be the fourth annual increase after 6 successive years of net debt retirement. On a calendar year basis, outstanding loan volume for commercial banks increased last year while FCS, FmHA, and life insurance loan volume was down somewhat. Commercial banks experienced a 5.7-percent increase in real estate lending in 1993, marking the eleventh consecutive year of gains. Some of the increase is due to continued stringent loan collateral requirements implemented during the farm financial crisis of the mid-1980's. There also has been increased use of revolving lines of credit backed by real estate.

Activity in the land market should create moderate demand for mortgage loans. U.S. farmland values increased 2 percent in 1992, rose an estimated 2 plus percent in 1993, and are expected to advance 2 to 3 percent in 1994. This will make 7 straight years of U.S. farmland value increases, but during the past 5 years the rate of increase has lagged the rate of inflation. Farm real estate debt should increase slightly in 1994.

Demand for nonreal estate loans should remain moderate in 1994. The outlook for farm inputs consumption and expenditures in 1994 will be influenced by energy prices, and an expected increase in both row and solid seeded crop acreage next year. Farmers are expected to spend between \$154 and \$156 billion in 1994 for agricultural inputs, up 2 to 3.5 percent from the estimated 1993 level. Planted acreage of major crops in 1994 will expand because of lower ARP's, which will increase the use of most crop inputs. Total planted acres for the seven major program crops plus soybeans are expected to increase 5.6 million acres in 1994 or 2.3 percent above 1993. Corn area likely will increase 6 million acres, soybeans 1 million acres, and sorghum 500,000 acres.

Sales of farm tractors, combines, and other farm machinery increased in 1993 from a year earlier. The value of machinery on farms is expected to rise in 1994 as purchases of tractors and combines continue at a somewhat higher rate. Capital

depreciation of farm machinery has exceeded capital investment every year since 1980. Low interest rates, higher asset values, manageable debt levels, and expanded acres should induce increases in sales. Nonreal estate debt thus is projected to increase slightly in 1994.

Credit Access Is Adequate

Creditworthy farmers should have adequate access to loans in 1994, mostly from commercial banks and the FCS, the largest suppliers. Banks' low loan-to-deposit ratios, despite some recent modest increases, provide liquidity to meet increased credit needs. The FCS is offering farm customers competitive interest rates and credit arrangements in an effort to enhance loan quality and expand market share. Total life insurance company lending is expected to be down slightly in 1994.

The availability of direct FmHA loans to family-sized farmers unable to obtain credit elsewhere should be adequate in fiscal 1994. Fiscal 1994 Operating Loan authority, at \$700 million, is down 15.2 percent from fiscal 1993 but Farm Ownership authority, at \$78.8 million, is up 17.0 percent. FmHA's authority to guarantee loans made by commercial and cooperative lenders should also be ample in fiscal 1994. Approximately \$1.46 billion in loan guarantees were issued in 1993, compared with the maximum \$1.59 billion in lending authority available. (The fiscal 1994 guaranteed maximum lending authority of \$2.61 billion is up 64.0 percent from 1993. Some 92.1 percent and 91.9 percent of the respective ownership and operating credit lines were used in 1993.) Demand for loan guarantees in 1994 is expected to increase from 1993 because of weather-related loan demand stemming from the natural disasters experienced last year.

The outlook for 1994 indicates that competition will continue to remain keen for high-quality farm loans. Trends in the general economy and farm lending competition should help keep interest rates down. The overall mood will generally remain circumspect. Producers continue to be careful in acquiring new debt and lenders continue to carefully scrutinize the creditworthiness of borrowers. Farmers who are good credit risks will have no difficulty acquiring credit in 1994. Lenders will have adequate funds. Commercial banks are watching collateral requirements and placing greater emphasis on borrowers' ability to repay loans from current income while operating in the more vigilant regulatory environment. Farmers will need to demonstrate adequate cash flow, and some marginal farm operators and beginning farmers will continue to face credit access problems. Farmers in severely affected, weather-related disaster areas will receive various types of forbearance from most farm lenders.

Farm Interest Rates Declined Throughout 1993

Farm interest rates expected to increase modestly in 1994.

Situation: 1993

Interest rates on farm loans made by institutional lenders declined throughout 1993, continuing a downward trend that started in the early 1980's (figure 8). Rates on new nonreal estate loans made by commercial banks, the Farm Credit System (FCS), and the Farmers Home Administration (FmHA) on its regular loans declined an average of 60 basis points (appendix table 4). The premium of farm nonreal estate loan rates over the prime rate has been generally trending downward since the mid-1980's, reflecting the decline of financial stress in the farm sector relative to that of the non-farm business sector.

Rates on new real estate loans made by these lenders and life insurance companies declined an average of 43 basis points (appendix table 5). Real estate farm loans made by commercial banks, the FCS, life insurance companies, and the FmHA (regular loans) in 1993 were priced about 141 basis points above the U.S. T-bond rate, a composite series similar in term to farm real estate loans. The proportion of interest expenses paid by farmers to lenders relative to the sum of interest expenses plus net cash income has continued to decline since its recent peak in 1981 (figure 9).

Macroeconomic factors in 1993 applied downward pressure on farm interest rates, especially for long-term real estate rates. Overall growth in domestic credit demand remained weak. Credit demand by all domestic nonfinancial sectors in the first three quarters of 1993 grew at an annual rate of just over 4 percent, compared with almost 11 percent in the 1980's. Slow growth in domestic credit reflected a number of factors: slow real economic growth, low inflation, slowing growth in government and household credit demand, and little growth in nonfinancial business credit. Strong growth in corporate profits and corporate equity issuances reduced business credit demand in 1993.

Reflecting this environment, long-term interest rates drifted sharply lower during the first three quarters of 1993. U.S. T-Bond rates fell 119 basis points from the fourth quarter of 1992 to the third quarter of 1993. The slow economic and weak credit growth, coupled with the low inflation rate, reduced investors' fears of sharply higher future inflation and credit demand. Lower real foreign bond yields, reflecting overall weak foreign growth and credit demand, further lowered U.S. bond yields.

Economywide short-term interest rates fell less than long-term rates in 1993. Six-month U.S. T-bill rates fell 12 basis points from the fourth quarter of 1992 to the third quarter of 1993. The prime rate has remained at 6 percent since July 1992. A stable monetary policy has kept the Federal funds rate in the 3- to 3.25-percent range since July 1992, preventing any additional decreases in short-term interest rates.

In the fourth quarter of 1993, long-term interest rates increased slightly. Six-month U.S. T-bill rates increased 20 basis points from the end of the third quarter to the end of the fourth quarter of 1993. The U.S. T-bond rate increased 31 basis points over the same period. This increase reflected stronger real economic growth, consumer confidence and borrowing that could raise future money and credit demand, thereby leading to higher interest rates in 1994.

Outlook: 1994

Real economic growth is expected to increase modestly in 1994. Private investment in business equipment is expected to accelerate, reflecting increased capacity utilization and anticipated stronger demand for final goods and services. Spending on residential construction and consumer goods is expected to remain strong due to continuing low mortgage rates, rising real disposable income, and the strengthening of consumer balance sheets in the early 1990's. The U.S. economy should strengthen due to stronger growth in foreign economies during 1994. Most economists believe the economic rebound will continue to be constrained by reduced government spending, particularly in the defense sector, as well as continued caution on the part of consumers and business toward debt.

In this environment of moderate economic growth and low inflation, interest rates in the general economy are expected to increase modestly in 1994. Rising interest rates are expected to result from rising real credit and money demand, not from significantly higher inflationary expectations. Most of the increase is expected to be in short-term interest rates, reflecting an expected tightening of monetary policy and rising cyclical business short-term credit needs to finance larger business inventories and increased sales. Increases in U.S. interest rates are expected to be tempered by continued declines in real foreign interest rates, particularly in the first half of 1994.

Agricultural interest rates are expected to rise with the increase in economywide interest rates, but to a lesser degree. High bank profits in 1992 and 1993 have significantly raised bank capital. Higher actual bank capital, relative to required bank capital, should increase bank willingness to lend and reduce bank net interest margins. Moreover, banks are extremely liquid, reflecting large increases in bank holdings of government securities in 1992 and 1993. The high degree of bank liquidity provides banks with large buffer stocks of liquid assets that could be used to expand loan volume. Finally, with bank liquidity very high and loan demand expected to increase only moderately, bank deposit rates, especially for consumers, should rise only slightly in 1994. Deposit rate increases should be the smallest at small rural banks, which typically are more dependent on consumer deposits. Farm

real estate rates are expected to increase less than nonreal estate loan rates.

Commercial Banks

Interest rates charged by commercial banks on nonreal estate loans averaged 7.5 percent in 1993, down 30 basis points from 1992. The decline in loan rates was greatest for "other banks," i.e., banks with assets of \$500 million or less. Other bank loan rates declined from 9.4 percent in 1992 to 8.7 percent in 1993. Rates on loans by large commercial banks declined slightly, from 6.8 percent in 1992 to 6.7 percent in 1993. The interest rates reported are for nonreal estate farm loans of \$1,000 or more made during the first full week of the second month of each quarter.

Generally, the smaller the loan size, the larger the decline in interest rate charged. Loans from \$1,000 to \$9,000 declined 70 basis points, while loans made for over \$100,000 declined 20 basis points. The average size of farm nonreal estate loans made in the fourth quarter of 1993 was \$40,000.

Commercial bank nonreal estate loans are classified by the loan's purpose. Rates on "feeder livestock" loans declined from 8.2 percent in 1992 to 8 percent in 1993, "other livestock" from 8.6 to 8.1 percent, "other current operating expenses" from 8.8 to 8.1 percent, "farm machinery and equipment" from 9.3 to 8.7 percent, and "other nonreal estate expenses" from 6.3 to 6.2 percent.

The number of new nonreal estate loans increased marginally to 2.7 million in 1993, continuing an upward trend since 1988. The 1993 figure is still below that of the early 1980's. The proportion of the number of loans made by other banks relative to large banks continues to decline. Other banks accounted for 95 percent of the loans made in 1984, and about 80 percent in 1993.

The average maturity of farm nonreal estate loans in 1993 was 7.3 months for feeder livestock, 9.6 months for other livestock, 8.3 months for other current operating expenses, 9.4 months for other nonreal estate loans, and 30.4 months for farm and machinery equipment loans. The average maturity of nonreal estate loans has trended upwards over the last 10 years, from 6.5 months in 1982 to 9.2 months in 1993.

The average size of farm nonreal estate loans increased from \$31,200 in 1992 to \$34,300 in 1993, consistent with a general upward trend in the average size of farm nonreal estate loan size since 1985. The average size of nonreal estate farm loans made by large banks in 1993 was \$106,000 and by other banks, \$15,800.

Nonreal estate loans made in 1993 totaled \$92.6 billion, up from \$83.7 billion in 1992. The amount of loans made in 1993 classified by purpose were (in billion dollars) 28.7 for feeder livestock, 6.2 other livestock, 24.7 other current operating expenses, 2.5 for farm machinery and equipment, and 30.6 for other nonreal estate loans. Large banks accounted for 63 percent of the amount of loans made in 1993.

Floating rate loans accounted for 76.7 percent of all nonreal estate loans made in 1993, up from 71.7 percent in 1992.

Floating rates have become increasingly popular over the years, trending continually upward from 1984 when only 38.9 percent of farm nonreal estate loans were made with a floating rate. Eighty-six percent of large bank loans were floating rate, 58.9 percent for other banks.

Long-term real estate loan rates declined from 9.45 percent in 1992 to about 8.71 percent in 1993, down 74 basis points. Long-term real estate rates are their lowest since the 1970's.

Farm Credit System

Interest rates on nonreal estate loans declined from 8.20 percent in 1992 to 8.09 percent in 1993, down 11 basis points. Interest rates on real estate loans declined 42 basis points from 8.25 percent in 1992 to 7.83 percent in 1993. In accordance with rates in the general economy and other farm lenders, FCS experienced larger declines in its rates on longer-term loans.

Treasuries declined over 1993, reducing loan fund costs. The expected upward shift in the yield curve in 1994 should increase the cost of funds to the FCS. The increase is expected to be greater for shorter-term maturities.

Farmers Home Administration

For nonreal estate (operating) direct loans, interest rates on regular loans declined from 6.79 percent in 1992 to 5.88 percent in 1993. Limited resource rates were steady over 1993, while regular rates declined in each quarter. The spread between regular and limited resource loans has declined to an all-time low of 42 basis points by the fourth quarter of 1993.

Farm ownership loans are used to purchase, improve, or refinance farm real estate. For real estate direct loans, annual average rates on regular loans declined 84 basis points from 1992 to 1993. The difference between these rates and those offered by other farm lenders on real estate loans has narrowed. Limited resource interest rates were a constant 5 percent for both years. The spread between regular and limited resource real estate loans was at an all-time low (175 basis points) by the fourth quarter of 1993. Since the emphasis on loan guarantees starting in the mid-1980's, direct real estate lending by FmHA has been drastically reduced, with emphasis on new and socially disadvantaged farmers. Direct loan rates are largely based on the Federal Government's cost of funds.

Life Insurance Companies

Interest rates on real estate loans declined from 8.74 percent in 1992 to 7.60 percent in 1993, down 114 basis points. However, rates ended the fourth quarter 28 basis points above the first-quarter average. Still, this is the lowest annual average observed since the beginning of the survey. Metropolitan Life, The Travelers, Prudential, Equitable (U.S.), and John Hancock make up about 86 percent of total loans outstanding to farmers made by the life insurance industry by the beginning of 1992. However, farm mortgages represent a very small proportion of the insurance industry's total assets.

Figure 8--Selected Interest Rates, Selected Year

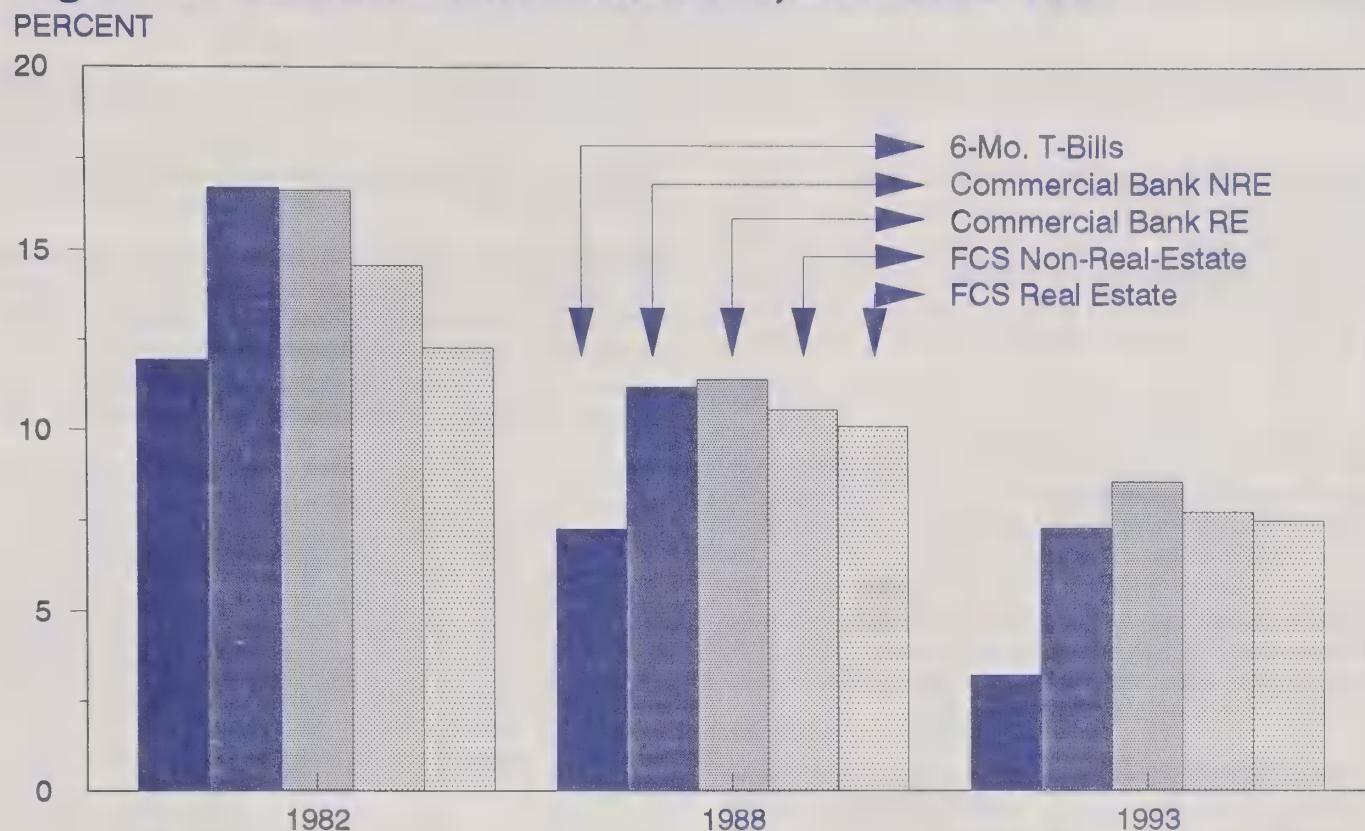
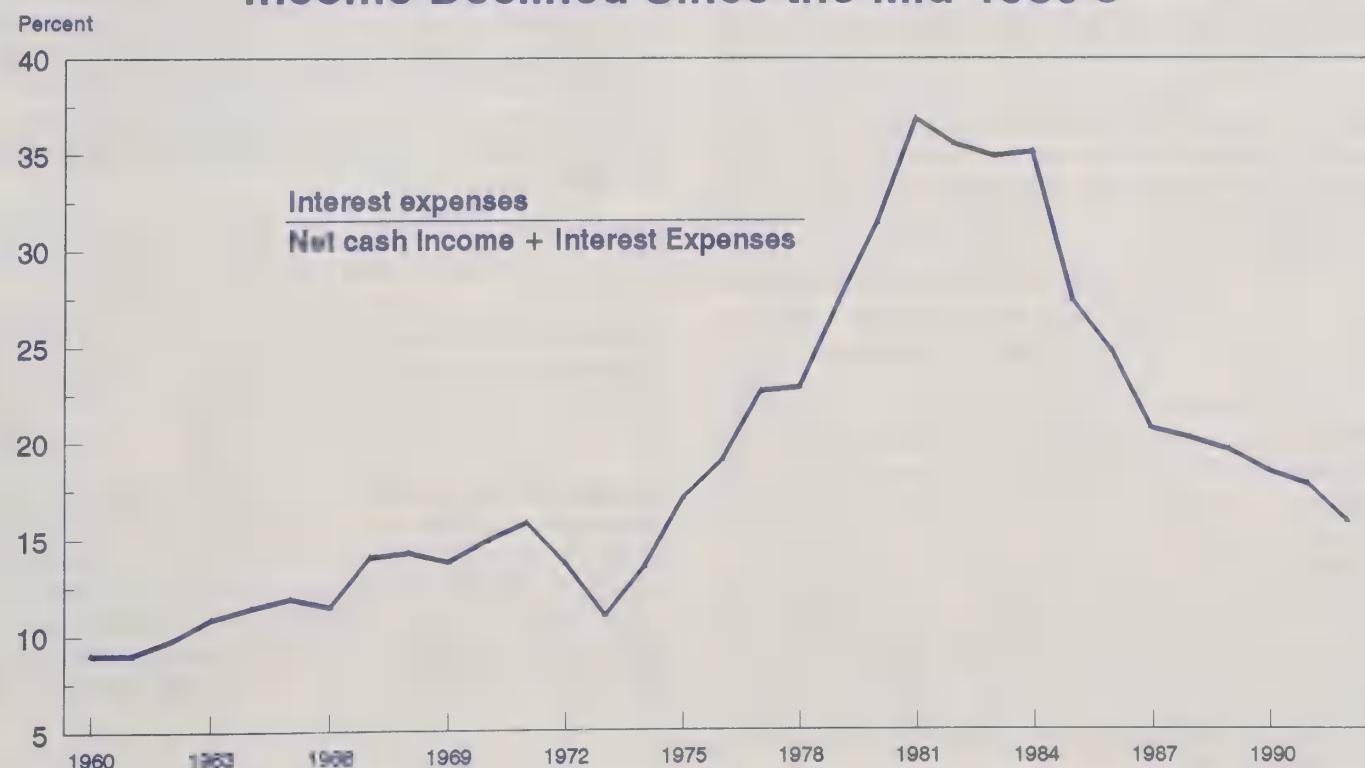


Figure 9--Interest expenses as a Share of Net Cash Income Declined Since the Mid-1980's



Commercial Banks Hold Largest Share of Farm Loans

Farm debt in 1993 increased for the fourth consecutive year following a 5-year decline.

The distribution of the farm sector's \$141.4 billion total debt, excluding operator households, as of December 31, 1993, is summarized in table 1. Commercial banks account for 38.0 percent of all farm loans, making them the leading agricultural lender, followed by the FCS with 25.2 percent. Individuals and others are estimated to hold 22.2 percent of the total.

Total farm debt at the end of 1993 was \$52.4 billion (or 27.1 percent) below its 1984 peak (appendix table 1). Real estate debt in 1993 was 28.8 percent below its 1984 peak and nonreal estate debt was 25.7 percent lower than its 1983 high (appendix tables 2 and 3). The overall paydown in the farm loan portfolio appears to have been driven more by demand than supply. For a variety of reasons, farmers decided to hold less debt. Large amounts of debt and relatively high interest rates made debt servicing a costly item in the early 1980's. By 1987-90, interest rates were lower, farm income was stronger, asset values were stable, and debt was down.

The farm sector entering 1994 is more cost-efficient and better capitalized except for scattered areas affected by severe weather problems. Since 1990 farmers have added to their debt, but very cautiously, with total debt increasing only 2.9 percent by 1993. Total nonreal estate debt has been growing since 1988 with a 5.8-percent increase through 1993. Real estate debt has increased only 2.5 percent since the 1990 low.

Commercial Banks Continue To Increase Market Share

Within the real estate debt portfolio, the value of outstanding real estate loans held by commercial banks has increased 158.2 percent since 1982 (appendix table 2). Some of the increase resulted from higher loan collateral requirements in the wake of the farm financial crisis rather than from new land loans. Collateral requirements shift production loans into the real estate category. It appears that farm credit markets have completed the transition from the collateral-based lending of the late 1970's and early 1980's. Lenders now emphasize borrowers' ability to repay loans from current income while operating in a more vigilant regulatory environment.

A number of important changes have occurred in the nonreal estate portfolios of the major farm lenders (appendix table 3). By the end of 1988, FCS nonreal estate loans had declined 58.8 percent from their 1981 peak, but they subsequently increased 20.3 percent during 1987-93. At the end of 1987, commercial bank loans had decreased 26.7 percent from their top figure in 1984, but they increased 24.0 percent during 1987-93. FmHA nonreal estate loans decreased 56.6 percent during 1985-93. In 1993, the FCS held 16.3 percent and commercial banks held 51.7 percent of total nonreal estate debt. The comparable figures in 1981 were 25.4 and 37.3 percent, respectively.

Delinquencies and Chargeoffs Continue at Lower Levels

During 1983-92 FmHA had the highest delinquencies in terms of both dollars and share of the portfolio (table 2). The value of delinquent loans peaked for commercial banks in 1985 and for the FCS and life insurance companies in 1986. Delinquencies as a percentage of outstanding farm loans peaked in 1986 for all lenders except FmHA, which peaked in 1988.

A key concern of farm lenders is the amount of loan losses they must absorb. Losses for commercial banks, FCS, and FmHA for 1983-92 are shown in table 3. During 1985-89, agricultural loan chargeoffs by these lenders totaled \$13.8 billion. The varying pattern of losses reflects institutional, accounting, and regulatory differences. Commercial banks tend to focus on farm production loans, where problems surfaced more quickly than for the farm mortgages that dominate FCS's loan portfolio. Moreover, until 1985 the FCS tended to extend more loan forbearance than commercial banks.

Another factor in the difference in writeoff timing between FCS and commercial banks may be Federal bank regulators' March 1986 policy initiative, which assists banks with losses in the farm and energy sectors. The change in how renegotiated debt is reported is an incentive for bankers to work with cash-strapped borrowers.

FmHA exercised liberal loan foreclosure forbearance into 1985, which resulted in low farm loan losses being reported by the agency. FmHA's policy of considerable forbearance continued in 1986 and 1987 because foreclosure activities were restricted by Congress and the courts. The outcome was low reported loan losses, but an accumulating amount of delinquent loans.

Beginning in fiscal 1987, FmHA began to resolve more vigorously the delinquent loan volume that accumulated during the 1980's. The Agricultural Credit Act of 1987 gave FmHA extensive guidelines to resolve its problems. FmHA has the authority to foreclose on delinquent loans if a complex set of restructuring rules, including partial forgiveness of principal and interest, fails to assist the borrowers.

Farmers and lenders continue to exhibit restraint in incurring debt to purchase land and replace machinery and equipment in the current cautious financial environment. Farm lenders have been reluctant partners in resolving the farm financial crisis of the 1980's. Total farm debt (excluding households) declined \$56 billion during 1985-91 and \$21 billion of this decrease can be attributed to loan chargeoffs taken by lenders.

Table 1--Distribution of farm debt, excluding operator households, by lender, December 31, 1993 1/

Lender	Type of debt		
	Real estate	Nonreal estate	Total
Percent of total			
Commercial banks	13.8	24.2	38.0
Farm Credit System	17.7	7.5	25.2
Farmers Home Administration	4.1	4.5	8.6
Life insurance companies	6.0	---	6.0
Individuals and others	12.1	10.1	22.2
Commodity Credit Corporation	2/	---	2/
Total	53.8	46.2	100.0

1/ Preliminary. Due to rounding some subcategories may not add to totals. 2/ \$1 million or 0.0007 percent of total debt. This includes CCC storage and drying facilities loans, but excludes CCC crop loans.

Table 2--Delinquent farm loans, by lender, 1984-93

Lender	Yearend 1/										Mid-year 1993 2/
	1984	1985	1986	1987	1988	1989	1990	1991	1992		
Billion dollars											
Commercial banks 3/ 4/	2.1	2.6	2.2	1.4	1.0	0.7	0.6	0.7	0.6	0.6	0.7
Farm Credit System 5/	1.8	5.0	7.0	5.2	3.3	2.5	2.5	2.2	1.9	1.9	1.7
Life insurance companies 6/	1.2	1.7	1.8	1.3	.8	.4	.4	.4	.3	.3	.4
Farmers Home Administration 7/	12.1	11.9	12.0	11.8	12.5	11.1	8.1	7.3	6.6	5.8	
Percentage of outstanding loans											
Commercial banks 3/ 4/	5.2	7.3	7.0	4.8	3.3	2.3	1.9	1.9	1.8	1.8	1.9
Farm Credit System 5/	2.5	8.0	13.8	11.8	8.0	6.1	6.1	5.4	4.6	4.6	4.1
Life insurance companies 6/	9.6	15.1	17.0	14.3	8.9	4.7	4.2	3.8	3.3	3.3	4.1
Farmers Home Administration 7/	45.9	41.5	42.9	45.8	49.8	47.8	41.3	41.7	42.5	41.0	

1/ End of fiscal year (Sept. 30) for the Farmers Home Administration (FmHA) and end of the calendar year (Dec. 31) for the other lenders. 2/ June 30. 3/ Delinquencies were reported by institutions holding most of the farm loans in this lender group. Data shown are obtained by assuming that the remaining institutions in the group experienced the same delinquency rate. 4/ Farm nonreal estate loans past due 90 days or more or in nonaccrual status, from the reports of condition submitted by insured commercial banks. 5/ Data shown are nonaccrual loans and exclude loans of the Bank for Cooperatives. 6/ Loans with interest in arrears more than 90 days. 7/ Prior to 1988 a loan was delinquent when a payment was more than \$10 and 15 days past due. Beginning in 1988, a loan is delinquent if a payment is more than 30 days past due. Data shown are for September 30; thus, they avoid the yearend seasonal peak in very short-term delinquencies and so are more comparable with those shown for other lenders. The FmHA data reflect the total outstanding amount of the loans that are delinquent (as do the data shown for other lenders), rather than the smaller amount of delinquent payments that is often reported as FmHA "delinquencies."

Table 3--Farm loan losses (net chargeoffs), by lender, 1984-93

Year	Commercial banks 1/		Farm Credit System 2/		Farmers Home Administration 3/		Exhibit: Life insurance company foreclosures 4/	
Million dollars (Percent of loans outstanding at end of period) 5/								
1984	900	(2.3)	428	(0.5)	128	(0.5)	289	(2.5)
1985	1,300	(3.3)	1,105	(1.6)	257	(0.9)	530	(4.8)
1986	1,195	(3.4)	1,321	(2.3)	434	(1.5)	827	(7.9)
1987	503	(1.6)	488	(0.9)	1,199	(4.3)	692	(7.5)
1988	128	(0.4)	413	(0.8)	2,113	(8.4)	364	(4.0)
1989	91	(0.3)	(5)	(0.0) 6/	3,297	(12.4)	204	(2.3)
1990	51	(0.2)	21	(0.04)	3,199	(13.5)	85	(0.9)
1991	105	(0.3)	47	(0.09)	2,289	(10.4)	95	(1.0)
1992	82	(0.2)	19	(0.04)	1,887	(9.1)	148	(1.8)
1993 7/	23	(0.0) 8/	4	(0.0) 6/	1,768	(9.4)	78	(0.9)

NA= Not available. 1/ Calendar year data for nonreal estate loans. 2/ Calendar year data. 3/ Fiscal year data beginning October 1. Includes data on the insured (direct) and guaranteed farm loan programs. 4/ Loan charge-off data are not available for life insurance companies. 5/ Loan loss data rounded to nearest million dollars. 6/ A gain of less than 0.01 percent. 7/ Commercial bank data through June 30, 1992, and Farm Credit System and life insurance company data through September 30, 1992. 8/ Less than 0.05 percent.

Sources: American Council of Life Insurance, Board of Governors of the Federal Reserve System, The Farm Credit Council, and Farmers Home Administration.

Agricultural Banks Are Highly Profitable and Eager To Lend

Farm banks have significantly reduced their delinquent loan portfolio and have excess lending capacity.

Agricultural banks posted another profitable year in 1993, surpassing their 1992 performance. Favorable farm prices, farm income, and interest rate spreads translated into larger profits for agricultural lenders. Their annualized mid-1993 performance indicates a rate of return on assets (ROA) of 1.4 percent, a slight increase over their strong 1992 average of 1.3 percent. Rate of return on equity (ROE) rose to 13.7 percent, also exceeding 1992's high level.

Continued improvement in ROA reflects increasing loan quality in farm bank portfolios. Loans in nonperforming status at midyear remained at 1.4 percent of total loans (table 4). This rate easily surpassed the industrywide rate of 2.7 percent. In both ROA and loan quality, agricultural banks also outperformed the small nonagricultural banks to which they are often compared.

The lessons of the farm credit crisis continued to confront agricultural lenders as farmers exercised caution in assuming more debt. Loan-to-deposit ratios at agricultural banks inched up to 58.1 percent, but most agricultural bankers have additional capacity to extend credit.

What Is an Agricultural Bank?

The Board of Governors of the Federal Reserve System (FRB) classifies banks as agricultural if their ratios of farm loans to total loans exceed the unweighted average of the ratio at all banks on a given date (16.98 percent on June 30, 1993). The Federal Deposit Insurance Corporation (FDIC) criterion is a constant 25 percent ratio of agricultural loans to total loans. While a farm loan ratio near 17 percent has sufficed in recent years to place a bank in the FRB's agricultural bank category (table 5), most farm banks retain much larger agricultural shares in their loan portfolios and therefore remain sensitive to conditions in the agricultural sector of the economy.

Seasonality in farm loan demand and the use of June data for the most recent year (rather than end of year) in table 5 contribute to a distorted view of trends in the number of agricultural banks. The table shows that for the 6 months ending June 30, 1993, farm banks declined by only 32 to 3,819 using the FRB definition and actually increased by 1 to 3,020 using the FDIC definition. However, outstanding bank farm loans typically peak in the summer, and decline over the rest of the year as production loans are paid down. Comparing June 1993 to June 1992 (not shown in the table) provides a truer picture, with much larger declines under both definitions; 152 fewer FRB farm banks and a drop of 126 following FDIC's approach to counting agricultural banks.

The trend toward fewer agricultural banks reflects a decline in farm lending relative to total loans, especially for the FDIC definition. But a stronger factor is the decline in total banks over the last decade due to mergers and failures. Unless otherwise indicated, the FRB agricultural bank definition is used throughout this report.

Farm Loan Quality Continues To Improve

Farm loan quality continued its impressive path of improvement. Delinquent loans at commercial banks dipped to 1.9 percent of agricultural production loans. Renegotiated and performing loans amounted to only .6 percent of production loans. Farm loan quality at agricultural banks exceeded that for commercial banks overall. Agricultural banks held only 1.4 percent of farm production loans in nonperforming status.

Net chargeoffs of farm production loans and loan loss provisions dropped in the first 6 months of 1993. Net chargeoffs fell to \$23 million, down from \$34 million a year earlier. Loan loss provisions fell to .2 percent, reflecting management's increasingly positive outlook for future loss rates (table 6).

Profitability Exceeds 1992 Results

Agricultural bank profits exceeded 1992 levels, with ROA at 1.4 percent and rate of return on equity (ROE) at 13.7 percent, both annualized from midyear figures. Small nonagricultural banks closely approached the performance of agricultural banks. Small nonagricultural banks matched the midyear ROE for agricultural banks, and slightly trailed agricultural banks in ROA with a ratio of 1.2 percent. Both bank types increased their average capital-to-asset ratio during 1993 further increasing their solvency.

Agricultural banks' loan-to-deposit ratios increased to 58.1 percent, compared with 65.4 percent at small nonagricultural banks. The ratio of loans to assets, 50.8 percent at agricultural banks and 56.9 percent at small nonagricultural banks, reveals the relative bank liquidity of these two groups. Both are highly liquid and eager to make additional loans, but expect loan demand to remain stable.

The decline in the number of failed farm banks reflects the improvement in farm bank loan quality and wider net interest margins. Just three agricultural banks failed in 1993 (appendix table 8), compared with seven a year ago. Total nonagricultural bank failures dropped to less than half of the 1992 number. Only five agricultural banks and 33 nonfarm banks were listed as weak at midyear, down significantly from a year earlier (appendix table 7).

Commercial banks posted record profits. Continued improvements in loan quality and lowered expectations for future loss rates caused loan loss provisions to plummet.

Table 4--Nonperforming loans as a percentage of total loans by type of bank, 1985-93 1/

Type of bank	1985	1986	1987	1988	1989	1990	1991	1992	1993
---Percent---									
Agricultural									
Total nonperforming 2/	4.1	4.7	3.8	2.7	2.3	2.0	1.9	1.8	1.4
Past due 90 days 3/	1.6	1.6	1.2	.8	.7	.6	.6	.6	.4
Nonaccrual	2.5	3.1	2.6	1.9	1.5	1.3	1.3	1.2	1.0
Small nonagricultural 4/									
Total nonperforming 2/	2.3	2.6	2.5	2.2	2.1	2.0	2.3	2.0	1.7
Past due 90 days 3/	.9	1.0	.8	.7	.7	.6	.7	.5	.4
Nonaccrual	1.4	1.6	1.7	1.5	1.4	1.4	1.6	1.5	1.3

1/ Data are weighted by bank asset size using month end June balances. 2/ Columns may not equal totals due to rounding. 3/ Still accruing interest. 4/ Banks with less than \$500 million in assets which were not agricultural by the FRB definition.

Sources: Johnson, James, Emanuel Melichar, and C. Edward Harshbarger, "Financial Condition of the Farm Sector and Financial Institutions," paper presented at the symposium on Financial Stress in Agriculture Issues and Implications, Kansas City, MO., Nov. 24, 1986, and calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 5--Number of agricultural banks by definition, 1985-93 1/

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993 2/
Commercial banks	14,283	14,008	13,505	12,961	12,635	12,270	11,849	11,400	11,140
Agricultural banks (FRB)	4,847	4,704	4,480	4,337	4,180	4,067	3,952	3,851	3,819
FRB farm loan ratio (Percent)	16.14	15.78	15.60	15.73	15.84	15.94	16.57	16.73	16.98
Agricultural banks (FDIC)	3,682	3,516	3,335	3,236	3,172	3,090	3,116	3,019	3,020

1/ Includes domestically chartered, FDIC-insured commercial banks with deposits, assets, and loans. 2/ 1993 figures are for June 30, all others are December 31.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System (FRB).

Table 6--Selected bank performance measures by type of bank, 1985-93 1/

Performance measure	1985	1986	1987	1988	1989	1990	1991	1992	1993 2/
Percent									
Rate of return on equity capital									
Agricultural banks	6.0	5.1	7.6	10.0	10.7	10.7	11.4	13.1	13.7
Nonag small banks	11.0	8.3	8.1	8.7	10.1	8.5	9.1	12.0	13.7
Rate of return on total assets									
Agricultural banks	.5	.4	.7	.9	1.0	1.0	1.0	1.2	1.4
Nonag small banks	.8	.6	.6	.7	.8	.7	.7	1.0	1.2
Provisions for loan losses as a percentage of total loans									
Agricultural banks	2.4	2.4	1.4	.8	.7	.5	.5	.4	.2
Nonag small banks	1.0	1.3	1.0	.9	.8	1.0	1.0	.8	.6
Capital as a percentage of assets									
Agricultural banks	9.6	9.5	9.8	10.0	10.1	9.9	10.1	10.4	10.9
Nonag small banks	8.5	8.4	8.8	8.8	9.0	9.0	9.2	9.6	10.1

1/ Rate of return on equity is net income after taxes as a percentage of the average of total equity capital at the beginning and end of the year. Rate of return on total assets is net income after taxes as a percentage of total assets on December 31. 2/ 1993 ratios are June 30 data, annualized.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Small Agricultural Banks Are the Biggest Farm Lenders

Agricultural banks with assets up to \$300 million hold over half of all farm loans, but nonagricultural bank shares increased slightly.

The numbers of agricultural and nonagricultural banks declined over the year, yet both groups increased the total value of their farm lending portfolios. Nonagricultural banks boosted their farm loan portfolio by \$1 billion over 1992, whereas agricultural banks reported a \$17-million increase. The overall increase caused a shift in market share away from agricultural banks, leaving nonagricultural banks with a 1-percent increase over the previous year.

The largest size class of nonagricultural banks continues to hold nearly one-quarter of all commercial bank farm debt (table 7). The remaining nonagricultural bank classes hold less than 20 percent of all farm debt, but are outperformed in market share by the two smallest classes of agricultural banks, which have 26.3 percent. The largest declines in bank number occurred in the small bank category — those with less than \$50 million in assets. Banks under this size hold 29.2 percent of all commercial bank farm debt.

Bank Solvency Measures Are Nearly Equal Among Bank Groups

Bank capital reduces the risk of bank failure by cushioning losses and supports liquidity by maintaining borrower confidence, allowing banks continued access to financial markets. Capital-to-asset ratios for midyear 1993 show that all commercial banks — regardless of size — are nearly equally solvent (table 8). All bank sizes reported ratios around 10 percent. Small commercial banks appear to be slightly more solvent with capital-to-asset ratios at 11.4 percent.

Small commercial banks are also more liquid than larger banks. Although larger banks lend a greater percentage of their asset base, they show a lower return on those assets than do smaller banks. Moreover, nonperforming real estate loans have eroded the capital of many large banks. Over 4.1 percent of big bank real estate loans were overdue as of June 30, 1993 (appendix table 6).

The difference in bank management approaches between large and small banks is reflected in loan-to-deposit and loan-to-asset ratios. The loan-to-deposit ratio has traditionally been used to measure liquidity. However, changes in financial markets which allow loans to be sold in secondary markets and the development of nondeposit funding sources have weakened the loan-to-deposit ratio's traditional role as a liquidity measure. Some banks may choose to make and hold more loans, resulting in higher loan-to-deposit and loan-to-asset ratios. Other banks may reduce risk and their loan-to-deposit ratios by selling loans and acquiring securities instead.

Largest Banks Most Profitable

Rate of return on assets (ROA) and the rate of return on equity (ROE) serve as the standard measures of bank profitability. The smallest banks registered the lowest ROA and ROE ratios (table 9). The largest banks generally outperformed smaller banks in ROE figures, but experienced slightly lower average ROA ratios as size class rose above \$300 million in assets. The impact of leverage resulted in the largest banks garnering the highest returns-to-equity capital.

The smallest banks, those with \$25 million or less in assets, include 1,478 agricultural banks and 907 nonagricultural banks. The smallest agricultural banks provided about 10 percent of commercial bank loans to agriculture. Small non-agricultural banks held a higher proportion of their total loans in real estate than their agricultural counterparts, making small nonagricultural banks more vulnerable to declines in land values.

Separating performance measures into agricultural and non-agricultural banks revealed a different profitability picture. Agricultural banks achieved an average annualized ROA of 1.38 percent and ROE of 13.57 percent. Agricultural banks below \$25 million in assets earned an ROA of 1.24 percent, higher than all nonagricultural bank size classes except non-agricultural banks with \$100 to \$300 million in assets, which achieved 1.28 percent.

Agricultural banks in each size class consistently outperformed their nonagricultural counterparts with respect to ROA and ROE. Medium-sized banks in both groups performed relatively equally in ROE ratios, with the largest sized banks being the most profitable.

Current Banking Issues

Interstate bank branching legislation is now gaining momentum in Congress. Final passage remains uncertain, but such a bill will allow banks to purchase and operate banks in all States as branches rather than as separate bank affiliates. Most agricultural banks are too small to attract attention from the large banks that are likely to participate in interstate branching.

Concurrently, Federal bank supervisory agencies are revising Community Reinvestment Act (CRA) regulations to simplify compliance and encourage lending to underserved areas. Banks below \$250 million in assets (which includes most agricultural banks) will likely escape new data reporting requirements, but the rural offices of larger banks will face scrutiny with respect to lending for agricultural and other purposes. A 60 percent loan-to-deposit ratio qualifies small banks for streamlined CRA examinations — a criteria likely to encourage increased lending.

Table 7--Agricultural lending of agricultural and nonagricultural banks by bank size, June 30, 1993 1/

Total assets	Banks	Agricultural banks				Nonagricultural banks				
		Total ag loans	Avg. ag loans	Ag lending share 2/	Ag loans/total loans	Banks	Total ag loans	Avg. ag loans	Ag lending share 2/	Ag loans/total loans
Mil. dol.	No.	---Mil. dol.---		---Percent---		No.	---Mil. dol.---		---Percent---	
Under 25	1,478	5,510	3.7	9.8	47.9	907	402	0.4	0.7	5.0
25 - 50	1,244	9,272	7.5	16.5	41.7	1,643	1,244	0.8	2.2	3.8
50 - 100	829	10,037	12.1	17.9	35.8	1,943	2,729	1.4	4.9	3.5
100 - 300	256	5,940	23.2	10.6	30.7	1,846	4,884	2.6	8.7	2.8
300 - 500	9	513	57.0	0.9	26.4	371	1,745	4.7	3.1	2.1
Over 500	3	343	114.2	0.6	19.5	611	13,544	22.2	24.1	0.8
Total	3,819	31,615	8.3	56.3	37.3	7,321	24,548	3.4	43.7	1.2

1/ Figures are weighted within size class. 2/ This represents the percentage of total commercial bank agricultural loans held by this size group of banks.

Table 8--Selected commercial bank solvency and liquidity ratios by bank size, June 30, 1993 1/

Total assets	Comm. banks	Capital to asset 2/	Equity to asset	Loan to deposit	Loan to asset	Deposit to liability
		No.	Percent			
Million dollars	No.		Percent			
Under 25	2,385	11.4	10.4	57.5	50.6	98.2
25 - 50	2,887	10.8	9.8	59.9	52.8	97.9
50 - 100	2,772	10.5	9.6	61.2	53.9	97.2
100 - 300	2,102	10.0	8.7	64.5	56.2	95.7
300 - 500	380	9.8	8.3	70.5	59.8	92.8
Over 500	614	10.6	7.1	82.6	59.0	77.2
Total/Avg.	11,140	10.5	7.6	77.5	58.2	81.5

1/ Weighted average within size class. 2/ Total capital includes equity capital, allowance for loan and lease losses, minority interest in consolidated subsidiaries, subordinated notes and debentures, and total mandatory convertible debt.

Table 9--Selected commercial bank profitability and efficiency measures by bank size, June 30, 1993 1/

Total assets	Return on assets 2/	Return on equity 3/	Asset utilization 4/	Noninterest income to total income	Interest expense to total expense	Interest expense to interest income
	Mil. dol.			---Percent---		
Under 25	1.11	10.69		7.99	10.67	43.94
25 - 50	1.22	12.35		8.00	10.97	44.93
50 - 100	1.26	13.27		8.06	11.92	45.25
100 - 300	1.28	14.30		8.21	14.00	43.79
300 - 500	1.18	13.80		8.32	15.63	42.36
Over 500	1.17	15.62		9.06	25.46	42.81
Average	1.19	15.04		8.85	22.84	43.07
						43.08

1/ All ratios are on an annualized basis and weighted within class size. 2/ Rate of return on assets is net income after taxes as a percentage of total assets. 3/ Rate of return on equity is net income after taxes as a percentage of total equity. 4/ Asset utilization is gross income as a percentage of total assets.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Farm Credit System Finances Continue To Strengthen

The Farm Credit System continues to build capital. Restructuring continues as growth fails to materialize and market share declines.

The Farm Credit System (FCS) entered 1994 in strong financial condition. Loan volume and quality have improved as have earnings and earnings quality. Capital levels continue to rise. Nonperforming assets continue to decline despite 1993's adverse weather.

After suffering substantial losses in loan volume in the mid-1980's, the FCS has started a nominal recovery in volume (table 10). However, loan volume continues to increase slower than the rate of inflation. Since FCS loan volume reached its low of \$50.7 billion in 1989, it has recovered to \$53.27 billion, an increase of 5 percent in 4 years. During the same period inflation has totaled roughly 16 percent.

The composition of the loan portfolio has changed as well. In 1986, long-term real estate loans comprised two-thirds of the FCS portfolio and loans to cooperatives 13 percent. By 1993, the portfolio share of long-term real estate loans had fallen to 55 percent and that of loans to cooperatives had increased to 24. The share of short- and intermediate-term loans fell to 21 percent in 1993 from 27 percent in 1986.

FCS income approached \$1 billion for calendar 1992 and will surpass this level for 1993 (table 11). Since 1990, net income has been dominated by solid operating results led by strong performance in net interest income. This trend continued in 1993 as the decline in the cost of funds outpaced the decline in interest charged on loans and as nonearning assets continued to fall. The 9-month results are substantially affected by two accounting changes. The FCS realized a one-time gain of \$135 million from the cumulative effect of a change in accounting for income taxes. Offsetting this gain was a one-time charge, net of taxes, of \$32 million, resulting from a change in accounting for post-retirement benefits other than pensions.

Even without the accounting changes, FCS income remained strong, reflecting an increase in the total annualized interest rate spread from 2.84 percent for the first 9 months of 1992 to 3.16 percent for the first 9 months of 1993.

Capital adequacy has been a major regulatory concern. By September 31, 1993, FCS at-risk capital, including loss allowances and the FCS insurance fund, stood at \$9.4 billion or 17.6 percent of loans outstanding (table 12). Combined surplus capital and loss allowances are now only 6 percent below the 1985 peak level of \$6.9 billion when the level of loans outstanding was 31 percent higher.

Nonperforming loans (nonaccrual loans plus accrual loans over 90 days past due) continue to decline both in dollar terms and as a percent of loans outstanding (table 12). Such loans now stand at \$1.71 billion or 3.22 percent of total loans outstanding.

Despite massive restructuring, the FCS has been unable to improve overall operating efficiency (last line, table 12). Overall operating costs per dollar loaned increased as the loan portfolio shrank and its quality deteriorated in the mid-1980's. Recent improvements in loan quality and continued restructuring have yet to make a significant dent in per-unit operating costs.

FCS Restructuring Continues

Several events took place during the last 12 months that will affect the future of the Farm Credit System. These include a number of additional district level mergers or merger announcements and an ongoing FCA study on intrasystem competition and Appeals Court ruling on that subject.

In the wake of the Agribank merger of May 1992, three other FCS districts have announced or proceeded with mergers. The Jackson Federal Intermediate Credit Bank (FICB) was merged into the Columbia Farm Credit Bank (FCB) on October 1, 1993, per the procedures legislated in the Farm Credit Safety and Soundness Act. On January 1, 1994, the Louisville FCB merged into Agribank FCB. The Spokane and Omaha FCB's have announced plans to merge on March 31, 1994. Rumors persist that the Springfield FCB is also seeking a merger partner, possibly CoBank.

In both the Jackson/Columbia and Louisville/Agribank mergers, smaller associations chose to affiliate with other banks. The Northeastern Louisiana PCA, formerly affiliated with the Jackson FICB, chose to reaffiliate with the Texas FCB. Several smaller associations formerly affiliated with the Louisville FCB chose to reaffiliate with the Columbia FCB.

Upon merger, all banks that received assistance from the FCS Assistance Board have prepaid Federal assistance. The Louisville FCB prepaid its \$90 million in assistance upon merging with Agribank. The Spokane FCB is expected to prepay assistance of \$62 million as well. The other two banks that received assistance, St. Paul and Omaha, have prepaid their assistance. The St. Paul FCB merged with the St. Louis FCB to form Agribank FCB in 1992.

At the time of the Agribank merger, annual savings of \$10 million in lower overhead costs and the elimination of 150 jobs were expected. No announcements have been made of the expected savings or job impacts of the other mergers.

In June 1993, the U.S. Court of Appeals for the Fourth Circuit ruled that the FCA could overcharter associations, placing them in direct competition. The FCA continues to study the conditions under which it will allow intrasystem competition. A report and policy statement are expected soon.

Loan volume increased slightly as loan quality, income, income quality, and at-risk capital continued to improve.

Table 10--Farm Credit System loan volume, by loan type, as of December 31, 1987-92, and September 30, 1993

Loan Type	1987	1988	1989	1990	1991	1992	1993
Billion dollars							
Long-term real estate	34.35	32.18	30.24	29.42	28.77	28.66	28.81
Short and intermediate term	9.93	9.26	10.02	10.67	11.22	11.11	11.43
Loans to cooperatives	8.22	9.99	10.44	11.08	11.47	12.63	13.03
Total	52.50	51.43	50.70	51.17	51.46	52.27	53.27

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Table 11--Farm Credit System income statement, as of December 31, 1987-92, and September 30, 1993

Item	1987	1988	1989	1990	1991	1992	1993
Billion dollars							
Total interest income	5.78	5.82	6.27	6.13	5.51	4.72	3.26
Less interest expense	-5.27	-5.04	-5.26	-4.89	-3.95	2.93	1.80
Net Interest Income	0.51	0.79	1.01	1.24	1.56	1.79	1.46
Less provision/plus reversal for loan losses	0.20	0.68	0.29	0.04	-0.05	-0.02	-0.02
Less loss/plus gain on other property	-0.23	-0.01	0.07	0.07	0.03	0.01	0.01
Plus other income	0.10	0.12	0.15	0.16	0.16	0.22	0.16
Less other expense	-0.79	-0.74	-0.75	-0.75	-0.79	-0.82 1/	-0.61
Less debt repurchase	0	-0.17	0	-0.04	0	0.04	0
Less taxes	-0.02	-0.04	-0.07	-0.07	-0.09	-0.15	-0.12
Net income	-0.02	0.71	0.70	0.61	0.81	0.99	0.88 2/

1/ Includes \$.028 billion in one-time merger implementation costs associated with the Agribank merger. 2/ Does not include on-time net income of \$104 million from changes in accounting for income taxes and nonpension post retirement benefits.

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Table 12--Farm Credit System financial indicators, as of December 31, 1987-92, and September 30, 1993

Item	1987	1988	1989	1990	1991	1992	1993
Percent							
At-risk capital/total loans 1/	8.41	7.64	10.52	11.95	14.09	15.91	17.61
Percent of loans in nonaccrual status or over 90 days past due	10.95	7.31	5.54	5.39	4.70	3.84	3.22
Other expense/total loans	1.51	1.43	1.47	1.46	1.53	1.51 2/	1.52

1/ At-risk capital includes allowances for losses on acquired property and loans, surplus and unprotected borrower stock and participation certificates, and the FCS Insurance Fund. Prior to 1988 all paid in borrower stock and participation certificates are considered protected. 2/ Annualized rate excluding \$.028 billion in one-time merger implementation costs associated with the Agribank merger. The rate would be 1.55 percent with merger costs.

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Farm Credit System Performance Varies Among Districts

Loan portfolio quality, net income, and at-risk capital positions generally improve. All assisted districts are performing well.

As of September 30, 1993, the FCS institutions that lend directly to farmers included 10 district FCB's, the FICB of Jackson, and the local lending associations. Combined, these institutions accounted for about 75 percent of FCS assets. Thus, FCS financial performance tends to mirror the aggregate financial performance of these banks and their associations. However, system-level statistics hide differences in performance among FCS districts. The following paragraphs compare the combined performance of the district banks (the FCB's and the Jackson FICB) and their related associations for the 9 months ending September 30, 1992, and September 30, 1993. (Since September 30, 1993, the Jackson FICB has merged with the Columbia FCB and the Louisville FCB has merged with AgriBank FCB.)

Total loan volume ranged from \$9.4 billion in the Agribank district to \$1.7 billion in the Springfield district. The Jackson district, which only made nonreal estate loans, had a loan volume of \$470 million (table 13). While aggregate loan volume declined 1 percent, most districts experienced minimal changes. Sizeable declines in loan volume occurred in the Western (down 3.26 percent) and Jackson (down 14.69 percent) districts. However, reductions in nonaccrual loans accounted for 27 percent of the reduction in loan volume in the Western district.

Aggregate nonaccrual loans decreased nearly 20 percent for the year ending September 30, 1993, despite adverse weather in the Midwest and Southeast. Such loans accounted for 3.86 percent of overall loan volume. Three districts still had ratios of nonaccrual loans to total loans exceeding 4 percent, and 1 district had a ratio exceeding 7 percent. The Springfield and Baltimore districts experienced substantial percentage increases in their nonaccrual loan volume, although loan quality in these districts continued to be above average. The Jackson, Agribank, Omaha, Wichita, Texas, and Spokane districts each reduced nonaccrual loan volume by more than 20 percent.

Improvements in net income and at-risk capital continue at an impressive rate. At-risk capital measures all resources that can be liquidated without impairing bondholders. Such resources include unprotected borrower stock and surplus as well as allowances for losses on loans. All-district net income rose more than 24 percent for the 9 months ending September 30, 1993, compared with a year earlier. Both all-district at-risk capital and the all-district ratio of at-risk capital to total assets increased by over 10 percent.

The increase in net income was distributed unevenly among districts. Before accounting changes, extraordinary items, and taxes, net income changes ranged from a decrease of 9.56 percent in the Springfield district to an increase of over 84 percent in the Jackson district and 68 percent in the Texas district.

Net income fell in the Springfield, Columbia, and Louisville districts (figure 10). The decreases in the latter two districts, however, were minimal and can be at least partially explained by changes in provisions for loan losses or reversals for previously recognized losses.

As noted earlier, accounting changes resulted in a sizeable increase in net income for FCS institutions beyond the 23 percent noted in before tax net income. All districts except Louisville recorded one-time gains related to accounting changes. These gains ranged from \$2.1 million for the Jackson district to \$17 million for the Springfield district (table 13, column 5).

In the Jackson district, the only district where at-risk capital fell, assets fell nearly three times faster than capital. Thus, the ratio of at-risk capital to total assets increased in every district. The ratio of at-risk capital to total assets is a measure of the cushion between stockholders and bankruptcy. This ratio exceeded 14 percent for each district and averaged nearly 18 percent for all districts. All districts increased their ratios of at-risk capital to assets over the year.

Assisted Districts Doing Well

Of particular interest is the financial performance of assisted districts. Since 1988, when legislation authorizing financial assistance to distressed FCS institutions was signed, four district banks have received Federal assistance: Omaha, St. Paul, Louisville, and Spokane. On May 1, 1992, the St. Paul bank merged with the St. Louis bank to form Agribank. Louisville also merged into Agribank on January 1, 1994. Omaha and Spokane plan to merge on March 31, 1994. Thus, by midyear 1994, all assisted districts will have undergone a merger.

The assisted districts are performing well, both in absolute terms and relative to districts that did not receive assistance. Taken together, assisted districts essentially had no change in loan volume, while decreasing nonaccrual loans by almost 23 percent. Nonaccrual loans as a percent of total loans remain high at just under 4.5 percent. Of the assisted districts, the Agribank and Spokane districts continue to have the most problems with loan quality.

Assisted districts continue to experience strong earnings growth. Net income has increased at assisted districts by over 23 percent before recording one-time gains of \$46 million related to accounting changes. Net income decreased ever so slightly in the Louisville district. Finally, the at-risk capital position of assisted districts improved by nearly 13 percent in absolute value and by nearly 14 percent relative to assets.

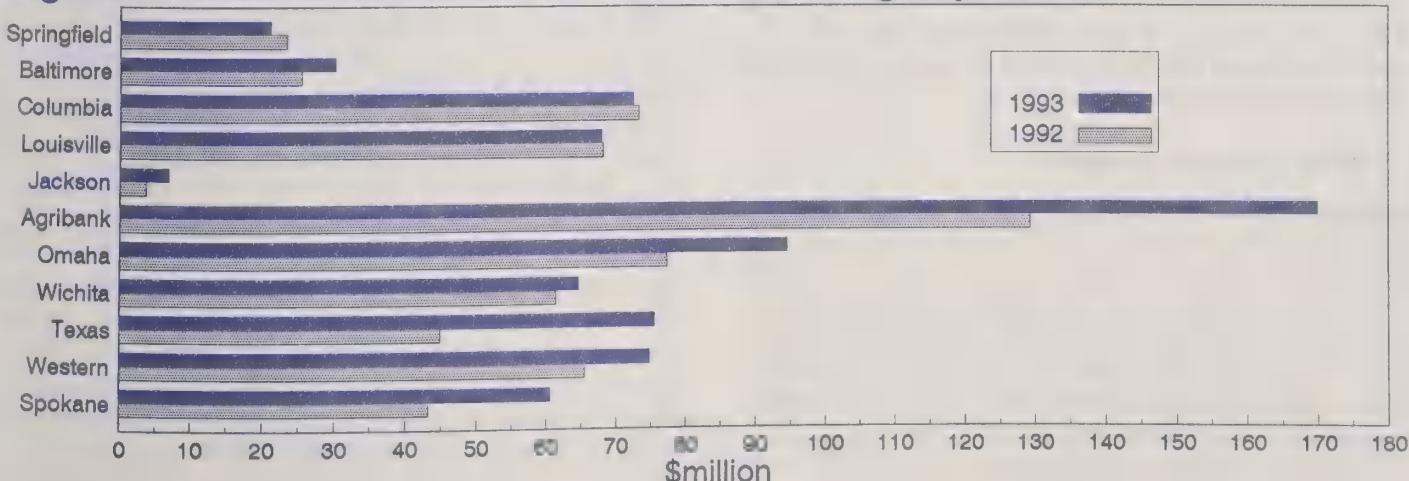
Table 13--Farm Credit System district-level financial statistics

District	Total loans	Nonaccrual loans	Nonaccrual loan share	Net income before taxes	Income from accounting changes	Total at-risk capital 1/	At-risk capital/assets
	Thousand dollars		Pct.	Thou. dol.	Pct.	Thou. dol.	Pct.
-----Nine months ending September 30, 1993-----							
Springfield	1,748,229	56,340	3.22	21,129	14,737	350,936	16.65
Baltimore	3,432,069	115,618	3.37	30,228	26,833	589,846	15.81
Columbia	4,268,711	98,439	2.31	72,529	71,013	978,116	18.99
Louisville	4,004,915	107,100	2.67	67,929	43,293	812,154	18.68
Jackson	467,973	14,243	3.04	7,022	6,293	106,986	19.66
Agribank	9,412,325	442,865	4.71	169,919	146,283	1,824,516	16.95
Omaha	3,921,899	145,082	3.70	94,515	90,874	758,560	17.82
Wichita	3,527,947	97,488	2.76	64,618	62,261	790,271	20.37
Texas	3,730,045	105,697	2.85	75,493	71,260	884,231	20.44
Western	4,786,767	232,685	4.86	74,756	71,186	905,037	17.03
Spokane	2,629,204	201,099	7.65	60,551	60,321	436,767	14.70
All districts	41,930,084	1,616,656	3.86	750,835	676,508	8,454,035	17.83
Unassisted districts	21,961,741	720,510	3.28	345,775	323,583	4,605,423	18.38
Assisted districts 2/	19,968,343	896,146	4.49	392,914	340,771	3,831,997	17.15
-----Nine months ending September 30, 1992-----							
Springfield	1,743,621	49,132	2.82	23,363	N/A	317,656	14.78
Baltimore	3,493,187	110,474	3.16	25,481	N/A	551,011	13.63
Columbia	4,344,172	121,644	2.80	73,258	N/A	925,903	17.93
Louisville	3,047,380	126,519	3.13	68,134	N/A	748,707	17.35
Jackson	548,558	20,367	3.71	3,815	N/A	110,717	17.98
Agribank	9,420,998	593,265	6.30	129,203	N/A	1,667,986	15.66
Omaha	3,944,653	191,468	4.85	77,329	N/A	630,239	13.74
Wichita	3,549,112	125,645	3.54	61,286	N/A	718,111	18.52
Texas	3,729,918	165,694	4.44	44,914	N/A	800,573	18.21
Western	4,948,222	276,493	5.59	65,533	N/A	808,943	14.48
Spokane	2,593,012	252,348	9.73	43,204	N/A	349,053	11.74
All districts	42,632,833	2,033,049	4.80	603,717	N/A	7,633,244	15.79
Unassisted districts	22,356,790	869,449	3.89	297,650	N/A	4,232,914	16.38
Assisted districts 2/	20,006,043	1,163,600	5.82	317,870	N/A	3,395,985	15.07
-----Percent change, September 30, 1992 to September 30, 1993-----							
Springfield	0.26	14.67	14.28	-9.56	N/A	10.48	12.64
Baltimore	-1.75	4.66	6.61	18.63	N/A	7.05	16.02
Columbia	-1.74	-19.08	-17.64	-1.00	N/A	5.64	5.90
Louisville	-1.05	-15.35	-14.56	-0.30	N/A	8.47	7.66
Jackson	-14.69	-30.07	-17.96	84.06	N/A	-3.37	9.37
Agribank	-0.09	-25.35	-25.31	31.51	N/A	9.38	8.24
Omaha	-0.58	-24.23	-23.73	22.22	N/A	20.36	29.67
Wichita	-0.60	-22.41	-21.94	5.44	N/A	10.05	9.98
Texas	0.00	-36.21	-36.18	68.08	N/A	10.45	12.24
Western	-3.26	-15.84	-13.04	14.07	N/A	11.88	17.64
Spokane	1.40	-20.31	-21.39	40.15	N/A	25.13	25.25
All districts	-1.02	-20.48	-19.68	24.37	N/A	10.75	12.95
Unassisted districts	-1.77	-17.13	-15.64	16.17	N/A	8.80	12.20
Assisted districts 3/	-0.19	-22.99	-22.89	23.61	N/A	12.84	13.82

NMF = No Meaningful Figure. 1/ At-risk capital includes allowances for losses on acquired property and loans, surplus and unprotected borrower stock. 2/ Assisted districts included Louisville, St. Paul, Omaha, and Spokane prior to the creation of Agribank. After the creation of Agribank, assisted districts include Agribank (the former St. Louis and St. Paul districts) in lieu of St. Paul. For purposes of comparison, therefore, the St. Louis district is included in the 1991 numbers even though it did not receive assistance.

Sources: Federal Farm Credit Banks Funding Corporation, Summary Report of Condition and Performance of the Farm Credit System, various dates.

Figure 10--District Net Income for 9 Months Ending September



Farmers Home Administration Direct Lending and Delinquencies Continue To Decline

Progress continues in decreasing direct lending and restructuring loans.

FmHA's share of agricultural credit continued to shrink in 1993 as new loan volume decreased, the number of direct loan program borrowers declined, and volume of bad loans outstanding continued to be reduced. As of September 1993, there were 140,091 direct (insured) farm program borrowers (down 9 percent from 1992), of which 128,564 were active with 14.6 percent of these delinquent. Another 8.1 percent of borrowers were in foreclosure, collection, or bankruptcy down from 11.1 percent in 1992. Outstanding principal on FmHA's direct farm loans also declined \$1.7 billion from mid-1991 to mid-1992.

The decline continues to be attributable to reductions in new lending volume, loan restructuring activity, loan writeoffs, and borrowers' hesitancy to increase indebtedness. Outstanding volume on direct loans at the end of fiscal 1993 stood at \$14.0 billion. Delinquency rates continued their overall downtrend in 1993 even though delinquencies in some categories increased slightly in 1992.

Direct farmer loan program obligations decreased slightly during fiscal 1993 to \$672.7 million (table 14). Operating Loan (OL) program obligations were down \$26 million to \$545 million, while Farm Ownership (FO) program obligations increased slightly to just over \$66 million. Appropriations were increased for both types of loans in 1993, reversing the previous downtrend. However, only 66.1 percent of OL appropriations were obligated at fiscal yearend. The loan limit on FmHA direct farm operating and farm ownership loans is \$200 thousand.

Emergency Disaster (EM) program lending receded to \$59 million (51.0 percent of the funds appropriated), down from \$600 million in fiscal 1992. Congress allocated an additional \$162 million in June 1993 to deal with weather-related disasters, but none was obligated at the end of fiscal 1993. Current statute authorizes FmHA to make emergency loans up to \$500 thousand at 3.75 percent interest with terms from 7 to 20 years, and 30 to 40 years on dwellings and structures. To qualify, a farmer must have suffered losses of 30 percent or greater in the disaster areas.

Loan Delinquencies Diminish

Regulations formalizing changes in loan servicing requirements that were finalized in 1992 brought more rapid improvement in reducing the number of delinquent loans. At mid-1993, \$4.4 billion in past due principal and interest payments were delinquent (at least 30 days past due), down 15.4 percent from a year earlier (table 15). Borrowers responsible for those delinquencies numbered 18,762, down 23 percent from a year earlier. Outstanding principal delinquent under the EE and EM programs accounted for \$3.0 billion, or 73 percent of the total FmHA outstandings delinquent at mid

year 1993 (a small increase over 1992) (table 16). Many of these loans have been delinquent for over 5 years.

Debt Restructuring Continues

Under rules established by the Agricultural Credit Act of 1987, FmHA continues to restructure loans delinquent for 180 days or more. Restructuring activity is picking up since changes authorized by the 1990 Food, Agriculture, Conservation, and Trade Act have been formalized. In March 1993, FmHA suspended farm loan accelerations and pending farm foreclosure cases that the Department of Justice had not prepared for legal action. This step was to ensure that proper servicing actions were being followed. The review found that 35 percent of about 1,100 foreclosures had been incorrectly serviced. Foreclosure activity is expected to increase in 1994.

In fiscal 1993, FmHA processed 1,766 writedowns for \$200.2 million and processed an additional 1,156 writeoffs totaling \$169.3 million. The writedowns are subject to recapture for 10 years under a shared appreciation agreement. Under current regulations, the writeoffs are potentially recapturable for 10 years under a net recovery buyout agreement.

Loan Writeoffs Remain High

Net writeoffs on FmHA's direct farmer loans decreased to \$1.70 billion in fiscal 1993, down from \$1.82 billion in the previous year. Writeoffs include a loss of \$5.3 million on the acquisition of acquired property and a gain from the sale of acquired property of \$53.7 million. The reduced level of losses can be attributed to less foreclosure and debt restructuring activity. Of the writeoffs, two-thirds occurred on the EE and EM program loans. With \$4 billion in long-term delinquent debt remaining in these programs, direct loan writeoffs will remain high for the foreseeable future.

Value of Inventory Property Falls

At the end of fiscal 1993, FmHA had a total of 2,723 properties in inventory of which 2,217 were classified as suitable for lease and resale to other FmHA program participants. Program-suitable FmHA farm real estate inventory property was valued at \$294 million as of September 30, 1993, \$35 million below the previous year. There were 341 properties added to inventory, down from the previous fiscal year's 506, of which 259 were FmHA program suitable. The sale of existing suitable properties increased to 733 units from the previous year's 417, while the average number of months property was held in inventory increased from 46 to 56. FmHA classifies inventory property as suitable or nonsuitable for resale depending on whether the property can sustain a viable farming operation. Suitable properties are reserved for 12 months for sale to FmHA program participants before they offered to other interested buyers.

Table 14--Farmers Home Administration farmer program obligations, September 30, 1986, to September 30, 1993

Year 2/	Obligations 1/			Outstanding principal of farmer programs 3/	
	Total	Direct (Insured)	Guaranteed		
	-----Million dollars-----		Share of total		
1986	4,367.5	2,807.9	1,569.1	35.9	29,240.4
1987	3,080.5	1,515.0	1,587.4	51.5	28,147.6
1988	2,320.7	1,065.8	1,271.4	54.8	28,242.6
1989	2,229.6	1,030.1	1,199.5	53.8	26,525.6
1990	2,193.2	921.3	1,271.9	58.0	23,684.0
1991	2,124.1	633.7	1,490.4	69.2	21,992.1
1992	2,306.4	714.5 4/	1,591.9 5/	69.0	20,460.6
1993	2,105.2	672.7 4/	1,432.5 5/	68.0	18,815.5

1/ Obligations are the dollar amounts of funds loaned or guaranteed, including the dollar amount of interest rate assistance provided on guaranteed loans. 2/ Fiscal years. 3/ Total outstanding principal balance of loans guaranteed by FmHA and direct or insured FmHA loans at yearend. 4/ Does not include credit sales of acquired property. 5/ Does not include guaranteed agricultural resource conservation demo loans.

Sources: Farmers Home Administration, 616 Report, 4067 Report, and 205 Report, various issues.

Table 15--Farmers Home Administration direct farmer loan program delinquencies, June 30, 1984, to June 30, 1993 1/

Year	Number of active cases 2/ (caseload)			Principal outstanding		
	Delinquent 3/			Delinquent 4/		
	Total	Total	Proportion	Total	Amount	Share of total
1986	429,146	157,391	36.7	27,834.6	6,835.2	24.6
1987	396,910	143,270	36.1	26,252.3	7,005.8	26.7
1988	383,571	151,486	39.5	25,395.7	8,749.7	34.5
1989	353,703	136,847	38.7	23,474.6	8,699.7	37.1
1990	305,551	95,915	31.4	19,926.9	6,665.8	33.4
1991	287,105	88,614	30.8	17,827.4	5,834.0	32.7
1992	257,277	84,083	32.7	15,903.7	5,157.1	32.4
1993	229,587	64,243	28.0	14,045.7	4,389.6	31.0

1/ June 30 of year shown to account for the annual cyclical trend in delinquencies. 2/ Duplicated cases because some borrowers have loans under several different programs. Prior to 1988 active cases excluded those borrowers who are in foreclosure, bankruptcy, or liquidation status. Active cases do not include loans made to associations. 3/ Prior to 1988 a case was considered delinquent when a payment was more than \$10 and 15 days past due. Beginning in 1988, a case is delinquent if a payment is more than 30 days past due. 4/ Amount delinquent includes past due principal and interest payments.

Source: Farmers Home Administration, 616 report, various issues.

Table 16--Farmers Home Administration direct farmer loan program delinquencies by program, September 30, 1993

Direct farmer programs	Number of active cases 1/ (caseload)			Principal outstanding		
	Delinquent			Delinquent		
	Total	Total	Proportion	Total	Amount	Share of total
	---Number---		Pct.	--Mil. dollars--		Pct.
Farm ownership (FO)	81,031	12,709	15.7	5,155.7	349.8	6.8
Farm ownership -- nonfarm enterprises	660	140	2.1	25.1	3.0	11.9
Operating loans -- excluding youth (OL)	64,619	20,315	31.4	3,092.2	744.3	24.1
Operating loans -- youth	2,046	119	5.8	7.4	0.5	6.8
Emergency dis- aster (EM)	49,097	14,624	29.8	3,876.1	2,398.1	61.9
Economic emer- gency (EE)	19,172	6,581	34.3	1,466.2	593.3	40.5
Recreation	38	20	22.7	4.7	0.6	12.8
Soil and water	8,026	1,591	19.8	147.9	26.7	18.1
Total	224,739	56,099	25.0	13,775.5	4,116.2	29.9

1/ Duplicated cases because some borrowers have loans under several different programs. Active cases do not include loans made to associations.

Source: Farmers Home Administration, 616 report for September 30, 1993.

Farmers Home Administration Guaranteed Lending Grows

FmHA targets its loan programs to help beginning farmers and ranchers.

Guaranteed obligations for farm ownership (FO) and farm operating (OL) loans totaled \$1.5 billion in fiscal 1993, down only slightly from the previous year (table 17), and the first time since fiscal 1987 that obligations hadn't increased. Guaranteed loans accounted for 70.0 percent of FmHA's total farm program obligations, up slightly from the previous record of 69.2 percent in 1991.

As of September 30, 1993, FmHA had guarantees on \$5.0 billion in farm program loans (table 18). The majority was divided between FO and OL loans. In fiscal 1993, 2,754 FO loan guarantees were extended for over \$448 million, and 9,783 OL guarantees were made totaling over \$1.0 billion. Over 90.0 percent of guaranteed loan appropriations were obligated during the year. Guarantee obligations are the amount of loan principal that FmHA has agreed to insure (up to 90 percent of the loan) for repayment to the lender. FmHA can guarantee up to a \$400,000 loan for operating purposes, while its guaranteed farm ownership loan cap is at \$300,000.

Delinquency Rates and Losses Remain Stable

Delinquent loan payments represented only 2.0 percent of total guaranteed loan volume at fiscal yearend, about the same as the previous year and consistent with delinquency rates for commercial lenders. As with the direct loan portfolio, emergency loans (not funded since the early 1980's) have the highest delinquency rates among guaranteed loans (table 19). FmHA losses on guaranteed farm loans increased in fiscal 1992 to \$66.0 million.

Outlook for FmHA Programs

The Agricultural Credit Improvement Act of 1992 (P.L. 102-554) authorized FmHA to establish a beginning farmer and rancher program, modify the operation of direct and guaranteed lending programs, and make other associated changes. All regulations were in place by September 30, 1993, and

FmHA has begun operating its beginning farmer, Federal-State partnership, and certified lender programs.

As of December 31, 1993, FmHA had received little feedback on its new certified lender program. In the coming months the certified lender program will serve as a basis for implementing a new preferred certified lender program. Preferred lenders will receive an automatic 80 percent guarantee from FmHA if the agency does not act on an application within 14 days of the completed application.

The Federal-State partnership offers States that operate beginning farmer programs access to the beginning farmer down payment loan program and/or a 90-percent loan guarantee.

At the end of 1993, five States had signed memorandums of understanding with FmHA and were making use of this program. Numerous other States have expressed an interest.

The 1992 Act defines a beginning farmer or rancher as having farmed for 10 years or less, and having provided a substantial amount of the day-to-day labor and management of the operation. For the foreseeable future, FmHA will be targeting its loan programs to beginning farmers and ranchers. As of December 31, 1993, FmHA had made 201 direct loans, 57 guaranteed loans, and 7 special assistance operating loans to beginning farmers and ranchers. Special assistance loans are made to farmers or ranchers with less than 5 years experience who have access to sufficient equipment to operate a viable farm business. FmHA special operating loans are set up specifically to pay for farm operating and family living expenses and to purchase farm livestock and equipment. The applicant must develop a 5-year farm plan describing in some detail how the operation will be conducted.

Farm ownership loans to beginning farmers or ranchers were comprised of 77 direct loans, 85 guaranteed loans, and 10 beginning farmer downpayment loans. The downpayment loan program has been established to make downpayments on farm ownership loans to assist in transferring land to a new generation of farmers and ranchers. The applicant must be able to make a downpayment of not less than 10 percent and FmHA will provide a 30-percent downpayment loan at 4 percent interest. In addition, FmHA will guarantee the remaining 60 percent of the loan. During the first 6 months of fiscal 1994, 30 percent of direct OL funds are targeted for beginning farmers and ranchers.

Loan funds for the direct FO and OL programs should be ample throughout fiscal 1994. Annual apportionments for direct FO loans have increased slightly to \$78.08 million while direct OL loans have fallen from \$825 million to \$700 million. Direct FO loans were used to near capacity in 1993, but 33.9 percent of direct OL loans were unobligated.

Appropriations for guaranteed FO loans not eligible for the interest assistance program were increased to \$556.5 million in fiscal 1994 up from \$488.8 million in fiscal 1993. As in fiscal 1993, no appropriations were made for interest-subsidized guaranteed farm ownership loans. Nonsubsidized guaranteed OL loans are funded at \$1.8 billion. Funding for subsidized guaranteed OL loans increased slightly to \$250.0 million in fiscal 1994. Use of the Interest Assistance program declined to \$15.4 million in 1993, almost 50 percent below the previous year. Funding for this program, however, was increased to \$29.4 million for fiscal 1994.

The outstanding volume of FmHA's guaranteed farm loans increased \$233 million in fiscal 1993, 5.1 percent over the previous year.

Table 17--Farmers Home Administration major farmer program lending authority and obligations, fiscal 1993, and appropriations, fiscal 1994

Program	Lending authority 1/	Obligations 2/	Fiscal 94 approp. 3/
-- Thousand dollars --			
Farm ownership (FO)			
Direct	66,750	66,813	78,081
Guaranteed	488,750	448,953	556,543
Operating loans (OL)			
Direct	825,000	545,173	700,000
Guaranteed	1,738,354	1,013,341	2,050,000
Emergency disaster (EM)	115,000	58,607	100,000
Interest Assistance	NA	NA	NA
Guar. Agric. Res.			
conservation demo loans	10,000	6,875	6,799
Credit sales of acquired property	88,000	49,277	123,783

1/ Budgetary limits on the volume of new loans that can be issued during the year. 2/ Actual amount of lending authority committed to new loans or loan guarantees. 3/ Budgetary appropriations setting limits on the volume of new loans that can be issued during fiscal 1994.

Source: Farmers Home Administration.

Table 18--Farmers Home Administration guaranteed farmer loan program delinquencies, September 30, 1986 to September 30, 1993

Year 1/	Number of active loans			Principal outstanding		
	Delinquent		Proportion	Delinquent 2/		Share of total
	Total	Total		Total	Amount	
--- Number ---						
1986	15,137	723	4.8	1,664.5	31.4	1.9
1987	23,558	1,106	4.7	2,384.0	42.6	1.8
1988	35,746	1,388	3.9	3,177.6	54.1	1.7
1989	38,840	1,733	4.5	3,243.7	60.6	1.9
1990	48,605	1,880	3.9	4,139.8	58.5	1.4
1991	52,299	2,170	4.2	4,526.6	59.3	1.3
1992	55,388	2,746	5.0	4,923.9	102.8	2.1
1993	42,475	2,077	4.9	5,044.8	98.5	2.0

1/ September 30 of year shown. 2/ Amount delinquent includes past payments of principal and accrued interest.

Source: Farmers Home Administration, 4067 report, various issues.

Table 19--Farmers Home Administration guaranteed farmer loan program delinquencies by program, September 30, 1993

Guaranteed farmer programs 1/	Number of loans			Principal outstanding		
	Delinquent		Proportion	Delinquent 2/		Share of total
	Total	Total		Total	Amount	
--- Number ---						
Farm ownership	14,591	580	4.0	2,095.0	26.0	1.2
Operating loans	27,561	1,434	5.2	2,913.7	67.0	2.3
Emergency loans	1	1	100.0	0.2	0.4	200.0
Economic emergency	312	59	18.9	34.9	4.8	13.8
Emergency live- stock	10	3	30.0	.9	.5	55.6
Total	42,475	2,077	4.9	5,044.8	98.5	2.0

1/ Emergency, Economic Emergency, and Emergency Livestock guaranteed loan programs are currently not being funded. 2/ Amount delinquent includes past due payments of principal and accrued interest.

Source: Farmers Home Administration, Report 4067 for September 30, 1993.

Life Insurance Company Farm Loan Portfolios Stable

Loan delinquencies and foreclosures are steady. The outlook for 1994 is quite favorable. Farmer Mac is a modest factor.

Historically, agricultural real estate mortgages have been an important investment for life insurance companies and a key source of farm real estate loan funds. Approximately 18,600 agricultural mortgage loans were held by about 18 life insurance companies on June 30, 1993. During 1993, the quality of agricultural mortgage portfolios of life insurance companies was generally stable.

Delinquencies Have Declined from Mid-1980's Peaks

Delinquency rates based on the number of loans held by life insurance companies were lower for agricultural mortgages than for nonagricultural loans throughout the 1970's. The agricultural delinquency rate surpassed the nonagricultural rate in June 1981 and did so continuously until December 1991. The June 1987 agricultural mortgage delinquency value of 9.12 percent was the highest recorded since the American Council of Life Insurance initiated its survey in 1954. Agricultural loan delinquency declined to a low of 2.34 percent in December 1991, but stood at 3.47 percent in June 1993 and again exceeded the rate for nonagricultural mortgages (table 20).

Delinquency rates on the volume of loans outstanding are now lower for agricultural mortgages than nonagricultural loans because of problems with the urban commercial real estate portfolio. The percent of agricultural mortgage debt that is delinquent exceeded the nonagricultural rate from June 1978 until December 1991. The agricultural delinquent share rose to a record 19.85 percent in June 1986 but declined to 4.06 percent by June 1993 when 6.23 percent of the nonagricultural portfolio was delinquent (table 20). Some \$341.9 million of life insurance company agricultural mortgage debt was delinquent on June 30, 1993.

Foreclosures Down from Earlier Highs

Agricultural mortgage foreclosures rates by number of loans have exceeded nonagricultural rates since June 1979, and stood at 1.52 percent in June 1993, down from the record 3.91 percent 6 years earlier (table 21). A total of 283 life insurance company agricultural mortgage loans were in the process of foreclosure on June 30, 1993, down from 1,915 on June 30, 1986.

Agricultural mortgage foreclosure rates by dollar amount of loans outstanding exceeded nonagricultural rates from June 1987 until December 1991. Agricultural foreclosure rates reached record highs in the 1980's (table 21). On June 30, 1986, a record 8.23 percent of the amount outstanding was in the process of foreclosure, but by June 30, 1993, it had declined to 1.93 percent. A total of \$162.3 million in life insurance company farm mortgage loans were in the process

of foreclosure on June 30, 1993, down from \$408.7 million 4 years earlier.

The number and dollar amount of agricultural and nonagricultural loans actually foreclosed during 1980-92 are shown in table 22. Agricultural mortgage foreclosures rose each year of the 1980's until 1986 when they peaked at \$827.5 million. During 1982-85, the dollar amount of agricultural mortgage foreclosures even exceeded that for nonagricultural mortgages. Foreclosures on life insurance company agricultural loans during 1980-90 totaled \$3.58 billion, with 57.2 percent occurring during 1985-87.

Outlook Is Stable to Generally Favorable

There will be opportunities in 1994 for life insurance companies to make profitable farm mortgage loans, but the competition for the better-quality loans will continue to be keen. Insurance companies will continue to have different views on agricultural lending. Active companies continue to have an ample supply of loanable funds and are aggressively competing on rate, terms, and loan-to-value ratio. Except in areas with weather problems, continued financial progress is expected.

In 1994, life insurance companies will continue to differ in aggressiveness in seeking new loans. Some, stung by earlier problems, will continue to avoid the market and will reduce their existing portfolios as farm loans mature. Other firms will offer funds only for renewals or increases of existing good loans. Some will continue to make loans more for agribusiness and timber activities at the expense of traditional production agriculture lending. The seven companies active in the farm loan market all report that available funds exceed qualified agricultural applications.

Total life insurance company farm loans outstanding are projected to be about constant in 1994. Activity on Farmer Mac loans that can be sold out of the company's portfolio may affect total loan holdings. All four Farmer Mac pools formed to date have involved a life insurance company as either an originator, a pooler, or both. The cumulative value of mortgages guaranteed under Farmer Mac I is \$681 million on pools formed between late 1991 and late 1992. This loan amount has moved out of the life insurance farm loan category and thus lowered reported farm loan holdings.

The life insurance firms currently active in the farm mortgage loan market are big companies with large farm loan portfolios. Most of the industry's new lending will consist of relatively large loans in selected States rather than being distributed evenly nationwide. At yearend 1992 half of the outstanding life insurance company farm mortgages were in California, Florida, Oregon, Texas, and Washington.

Table 20--Life insurance company mortgage loan delinquencies, 1987-93 1/

End of month	Rates by number of loans		Rates by amount	
	Nonagricultural mortgages	Agricultural mortgages	Nonagricultural mortgages	Agricultural mortgages
--- Percent ---				
1987 June	1.46	9.12	2.96	18.01
Dec.	1.60	6.83	2.61	14.31
1988 June	1.53	6.75	2.77	13.27
Dec.	1.74	4.44	2.44	8.87
1989 June	1.55	4.68	2.75	8.65
Dec.	1.68	2.68	2.37	4.74
1990 June	1.87	3.41	2.94	5.26
Dec.	2.10	2.40	3.60	4.22
1991 June	2.30	3.55	5.25	6.35
Dec.	2.66	2.34	5.79	3.84
1992 June	2.87	4.07	7.35	5.48
Dec.	3.05	2.64	6.50	3.33
1993 June	2.78	3.47	6.23	4.06

1/ Delinquent loans (including loans in the process of foreclosure). A delinquent loan is a nonfarm mortgage with interest payments in arrears at least 2 months (60 days if other than a monthly pay) or a farm loan with interest in arrears more than 90 days.

Table 21--Life insurance company mortgage loans in the process of foreclosure, 1987-93 1/

End of month	Rates by number of loans		Rates by amount	
	Nonagricultural mortgages	Agricultural mortgages	Nonagricultural mortgages	Agricultural mortgages
--- Percent ---				
1987 June	.37	3.91	1.11	7.98
Dec.	.41	3.02	1.07	6.43
1988 June	.46	3.36	1.16	6.33
Dec.	.45	2.60	1.22	4.83
1989 June	.43	2.35	1.38	4.67
Dec.	.43	1.30	1.29	2.28
1990 June	.46	1.31	1.56	2.23
Dec.	.51	1.13	1.71	1.91
1991 June	.58	1.26	2.39	2.45
Dec.	.68	1.29	2.78	2.24
1992 June	.77	1.74	3.40	3.11
Dec.	.76	1.57	3.08	2.32
1993 June	.84	1.52	2.89	1.93

1/ Reporting companies account for approximately 80 percent of the mortgages held by U.S. life insurance companies depending on the date of the survey. Loans in foreclosure include those on which foreclosure action has been authorized, including any involved in a subsequent filing of bankruptcy. Beginning in 1988, the loans in foreclosure category includes loans in redemption period.

Table 22--Life insurance company mortgage loans foreclosed, 1980-93 1/

Year	Nonagricultural mortgages		Agricultural mortgages	
	Number	Thou. dollars	Number	Thou. dollars
1980	549	63,237	26	18,160
1981	552	58,491	47	55,741
1982	760	131,392	167	170,310
1983	868	114,993	306	347,002
1984	1,024	242,428	475	289,251
1985	1,033	328,558	1,000	530,235
1986	1,541	1,143,082	1,654	827,472
1987	2,048	1,580,027	1,515	691,914
1988	1,196	2,530,105	727	364,414
1989	1,098	2,178,949	356	204,361
1990	1,018	3,042,171	122	85,281
1991	1,284	4,942,349	125	94,875
1992	1,365	6,665,288	88	148,006
1993 2/	617	3,610,767	36	54,167

1/ Loans foreclosed include those for which title to the property or entitling certificate was acquired during the period shown, either through foreclosure or voluntary conveyance in lieu of foreclosure. Dollar amounts include principal outstanding at the time of the foreclosure, amounts capitalized for interest, foreclosure costs and any advances made to protect the collateral. 2/ January 1 through June 30.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

Farmer Mac Development Continues

No loan pools were completed in 1993, but two new pooling programs began.

The Federal Agricultural Mortgage Corporation (Farmer Mac) guaranteed no mortgage pools in 1993, but reports that progress was made in forming loan pools for securitization in 1994. Farmer Mac has not guaranteed a loan pool since October 1992.

Two poolers, Travelers Realty Investment Company and Prudential Securities Secured Financing Corporation, announced "open window" pooling programs early in 1993. Both poolers are purchasing entire farm loans from any Farmer Mac stockholder, which means originators need not retain the 10 percent subordinated interest (SBI). Both poolers are pricing loan purchases based on Farmer Mac's Linked Portfolio Strategy (LPS). Under LPS, Farmer Mac purchases senior securities or obligations backed by qualified loan pools from the pooler and finances these purchases by selling its own securities.

The SBI had been a major stumbling block in Farmer Mac's development because it means that some entity must absorb the first 10 percent of a loan pool loss before Farmer Mac's guarantee is called upon. If commercial banks retain the SBI, regulators require that capital be held against the full value of the sold loan. This requirement greatly lowers the profit potential of a loan sale for the originating bank. Because poolers are now purchasing the whole loan, banks are relieved from holding this capital.

Both Travelers and Prudential are purchasing only loans that meet their specifications. Long-term fixed-rate loan products are being offered by using Farmer Mac's LPS program. However, these fixed rates come with full yield maintenance requirements. Yield maintenance essentially requires the borrower to pay a financial penalty if he or she elects to make payments ahead of schedule or pay off the loan before it matures (prepayment). Yield maintenance is required under the LPS program to minimize the financial risk Farmer Mac incurs from interest rate changes and repricing costs. Both companies have added partial open prepayment loan products, which charge higher rates in turn for the borrower's ability to prepay after a certain length of time without penalty.

As the year progressed both poolers expanded the type of loan products they will purchase. Both poolers are purchasing balloon loans that are amortized over 25 years and offer fixed rates for 5, 10, or 15 years. There is also a 15 year fixed-rate fully amortized loan available. Prudential is buying loans up to \$1.5 million with loan-to-value ratios of 70 percent and Travelers is purchasing loans up to \$3.0 million with loan-to-value ratios up to 75 percent. Both pooling programs offer originators up front rate lock-ins (commitments) and Farmer Mac is assisting market development by providing pre-approval services on complex loans that are on the margin of Farmer Mac's underwriting standards.

Travelers is purchasing loans directly from originators through its regional lending offices. Prudential has chosen a different loan collecting approach, contracting with Equitable Agri-Business to service a network of sellers that collect loans from lenders and funnel them to Prudential. Equitable provides loan underwriting and servicing functions for Prudential.

Other Developments

Until 1993, Farmer Mac had little to report on the pooling of rural housing loans. Initially, some had thought that the rural housing component of Farmer Mac would develop before the farm loan component because of the broad experience of existing successful secondary markets for housing loans. The Farm Credit Bank of Columbia, S.C., a certified Farmer Mac pooler, is currently developing a rural housing loan pooling program that will be available to all Farmer Mac eligible lenders. Details of the program have yet to be made public.

The Western Farm Credit Bank of Sacramento became a certified pooler in April 1993. This brings to eight the number of certified poolers, of which four are affiliated with life insurance companies, two are securities companies, and two are Farm Credit System member banks. Two Prudential Insurance subsidiaries are performing under the same certification, and therefore, the actual number of certified poolers is nine. There were no pooler applications pending at the beginning of 1994.

In November, Farmer Mac Class C Non-Voting Common Stock separated from the Class A and Class B Voting Common Stock and became freely transferable to any investor. Originators and poolers are required to own voting stock to participate in Farmer Mac and were given shares of Class C stock when the stock was initially sold in November 1988. Class B stock can only be held by FCS members and all other lenders must hold Class A stock. The stock is to be listed on the NASDAQ Small-Cap Market.

Financial Condition Stabilizes

Farmer Mac's financial condition stabilized in 1993 as revenue rose and expenses were curtailed. Net losses for the first 9 months of 1993 were nearly half the losses incurred during the first 9 months of 1992. Start-up costs and accumulative operating losses have whittled the initial stockholder equity from \$21.6 million to \$13 million as of September 30, 1993.

Despite Farmer Mac's improving income statement, its guarantee fee revenue is declining as the outstanding balances on existing loan pools rapidly shrink. Therefore, to continue to show improvement in stemming financial losses in 1994, Farmer Mac will need to guarantee new loan pools in the coming year. Farmer Mac collects fees that range from 0.25

to 0.375 percent per year on the outstanding principal balance of its guaranteed securities.

Outlook for 1994

Market conditions that have stymied Farmer Mac's growth the past few years appear unlikely to change much in 1994. These conditions include a relatively weak demand for farm real estate financing, particularly with fixed interest rates, and ample lending capacity among agricultural lenders.

When loan demand is weak and lenders have excess lending capacity the incentive to sell loans into a secondary market is muted because there is little need for additional lending capacity. Farmer demand for fixed rate loans has been damped because variable interest rate loans continue to offer farmers lower-cost financing. Also, farmers and lenders are accustomed to variable rate financing and there is some reluctance to shift to higher fixed rate financing, even though fixed rates are the lowest in decades.

Farmer Mac poolers must also overcome unfamiliarity among farmers with loans that have prepayment restrictions as are now required under both pooling programs. Farmers are accustomed to mortgages that they can pay down without penalty at any time.

Boosting the market's volume would be a rise in loan demand or a rise in short-term interest rates relative to long-term rates, which would encourage farmers to use the fixed rates offered through Farmer Mac. Participation by FCS institutions could also spur Farmer Mac growth, but the majority of its members appears to be disinterested. FCS loan products are a major competitor to Farmer Mac loan products.

Farmer Mac II Volume Doubles

The Farmers Home Administration (FmHA) guaranteed portion of loans sold through the Farmer Mac II market in 1993 totaled \$39.5 million, up from \$24 million in 1992. Cumulative sales since the market's inception in 1991 totaled \$73.3 million at 1993 yearend, more than double cumulative sales at 1992 yearend. A total of 333 loans were sold or swapped last year, bringing the cumulative total to 580.

Under Farmer Mac II, lenders can swap guaranteed loans for a marketable security or sell them to Farmer Mac for cash. Most loans are now sold for cash. If sold for cash, lenders receive the par value of the loan and a "management premium" for the difference between the net yield (the rate investors receive from purchasing the loan or pool of loans) and the contractual loan interest rate the borrower pays. The guaranteed portion of operating loans and farm ownership loans and

business and industry loans administered by Rural Development Administration are eligible for sale.

Most loans are now sold under Farmer Mac's linked portfolio strategy (LPS) program. LPS loan rates are tied to a Farmer Mac cost of funds index (COFI), which has resets between 3 months and 10 years. The COFI, which Farmer Mac creates by selling discount notes and bonds, provides a lower base interest rate than other commonly used base rates, such as the prime rate.

Lender participation in Farmer Mac II continued to grow in 1993, with 111 different lenders having sold at least one guaranteed loan so far. This count is up from 62 at the beginning of 1993. Commercial banks, which are the primary user of loan guarantee programs, continue to be the primary users of Farmer Mac II.

Regional use of the market is evident with four States--New York, Vermont, California, and South Dakota--accounting for nearly half of cumulative sales. These are States that have traditionally not led in loan guarantee use, but lead in Farmer Mac II sales because a few lenders in those States have become active participants. Remaining sales come primarily from Corn Belt, Northern Plains, and Lake State regions. Loans from 30 States have now been sold through the market.

Steady Growth Expected

Farmer Mac II volume is still small relative to total FmHA guaranteed loan volume, which suggests that the market has ample room for growth. Farmer Mac II volume in 1993 constituted less than 5 percent of FmHA's fiscal 1993 guaranteed loan volume that is eligible for Farmer Mac II sale.

Factors affecting 1994 growth include the pace of guaranteed lending and the economic opportunities the market may offer lenders. Farmer Mac II offers lenders an opportunity to minimize interest rate risk and increase lending capacity and total returns. However, many lenders currently have excess lending capacities and this situation is not likely to change much in 1994.

The pace of guaranteed lending is influenced by lender acceptance and the economic well-being of farmers. Despite some regional decline in farm financial conditions, a major decline in the creditworthiness of farmers is not anticipated in 1994. In the past, cumbersome paperwork and slow approval times have been cited as impeding lender participation. FmHA revamped its application and approval process in 1993. To the extent guarantee use is encouraged by the revamping, activity in Farmer Mac II could be enhanced.

Lenders Face Challenges Ahead

Policy changes affecting agriculture and financial services, technological advances, and the evolving structure of agricultural production will shape agricultural credit markets into the next century.

The delivery of farm credit continues to evolve in response to changes in the structure of agricultural production, in financial services, and in their respective policy environments. These changes indicate continued consolidation of farm lenders and intense competition for market share.

Financing Needs of Agriculture Have Changed

The demand side of agricultural credit is changing due to trends toward consolidation, specialization, and vertical integration in agriculture. The hog industry provides an example. In the last decade, hog production has moved to larger independent operations and contract feeders, a structure already established in the poultry and cattle industries. Consolidation in grain production continues as new technologies, such as minimum and no-till practices, increase economies of scale. Growing regulation of agriculture and shrinking government support are also driving consolidation of agricultural assets and production.

These production trends tend to stimulate demand for larger credit lines, lease financing, more sophisticated and specialized financing arrangements and related financial services such as insurance and cash management. Lenders equipped to provide these services have a competitive advantage. Agricultural banks with small asset bases and limited resources are particularly vulnerable and could be left to compete for smaller or nonexpanding farm operations.

Aggregate demand for credit has been stagnant and shows no sign of increasing significantly in the near future. Lacking an export driven boom in commodity markets, farmers may remain cautious in their use of credit. In the absence of expanding credit demand competition for creditworthy farm customers will remain keen.

Agricultural Lenders Consolidate ~~as~~ Supervision and Capital Standards Tighten

The supply side of agricultural credit is also experiencing change. The Farm Credit System will have consolidated 37 banks into 8 as of March 31, 1994. The number of commercial banks has fallen by 20 percent in recent years and consolidation continues. Considerable liberalization has occurred over the last decade in branching regulations, while capital standards and supervision have been tightened for both banks and the FCS. Insurance companies and thrifts have experienced similar changes. Technology continues to change the economics of financial services and many available technologies have not yet been fully adopted.

In addition, lenders, including input suppliers, not hampered by the regulatory burden placed on banks, thrifts, and FCS

institutions, are expanding. Input suppliers offer customers point-of-sale financing at competitive rates. Their automated loan underwriting systems can provide loan approvals within hours at very low costs. Input suppliers also enjoy close contact with customers and a better understanding of collateral values. By linking financing to product sales input suppliers may have a competitive advantage over other lenders.

Two developments hold the potential to heighten competition in the market for farm real estate loans. Farmer Mac may increase competition by encouraging new entrants into rural lending markets, and lenders are beginning to adopt recommendations of the Farm Financial Standards Task Force. Uniformity of financial standards will lower underwriting costs and foster greater competition by making it easier for farm borrowers to comparison shop.

A Reduced Farm Safety Net

The 1990 farm bill froze commodity program prices, reduced acreage eligible for program payments, and provided farmers with greater planting flexibility. More recent legislation has targeted some commodity programs for termination. These policies tend to raise the variability of farm income and raise the risks of farm lending. Secretary Espy has targeted crop insurance and disaster relief for reform as well. Given Federal budget constraints and falling farm numbers, the farm income safety net appears vulnerable.

Over the past couple of decades agriculture had a large credit safety net in place when farm financial stress occurred. But the FmHA, which financed thousands of distressed farmers in the 1980's, has fewer resources today and hence provides less of a safety net to farmers and their lenders. Increasingly, its shrinking resources are being targeted to beginning and minority farmers, leaving less for untargeted assistance. Continued cutbacks in FmHA credit assistance are possible given Federal budget constraints.

Lender Competition to Intensify

Given consolidation and vertical integration of farm production, stagnant demand for credit from traditional lenders, and falling government support for the sector, farm lenders face a period of intense competition for market share and further consolidations. There may be a silver lining, however. Recently completed trade agreements liberalize world agricultural trade, world grain inventories are currently low, and world population continues to increase. These factors have the potential to increase effective demand for U.S. agricultural production, especially if the world economy improves.

Farm Credit System Seeks Expanded Powers

by

Audrae Erickson and Robert N. Collender¹

Abstract: The Farm Credit System is seeking expanded powers in response to changes in agriculture and agricultural lending that have limited its growth opportunities. Powers sought include expanded authority to finance agricultural commodity exports and rural needs, including housing, infrastructure, business, and rural development. The FCS's status as a Government-sponsored Enterprise and high safety and soundness standards are important considerations in expanding its powers.

Keywords: Farm Credit System, expanded powers, Government-sponsored enterprises.

Changes in Agriculture, Declining Market Share Spark Interest in Expanded Powers

The Nation's agricultural landscape is changing rapidly. The farming population is declining, acreage per farm is increasing, and the importance of primary agriculture to the Nation's economy is diminishing. The financing needs of agriculture are changing in conjunction with the sector's transformation. Production agriculture is increasingly characterized by vertical integration, specialization, and consolidation. The numbers of part-time and very large farms (sales over \$250,000) continue to increase, while mid-sized, family farm numbers decline.

The on-going transformation has implications for agricultural lenders (see Long-term Lender Outlook, in this issue). Agricultural lenders must adapt to meet the needs of their customers. Some have argued that these changes put the Farm Credit System (FCS) at a competitive disadvantage that makes revising its mandate appropriate in the short run and conversion to a commercial bank charter appropriate in the long run (Freshwater, Riemenschneider and Freshwater).

During the 1980s, the FCS required Federal assistance to survive a farm credit crisis that dissipated billions of dollars of retained earnings, cut FCS loan volume from \$78 to \$50 billion, and caused several FCS institutions -- including the Federal Land Bank of Jackson -- to fail. More recently, the FCS has restructured, enjoyed excellent profitability, and rebuilt capital. However, loan volume has stagnated in nominal terms since 1988 and fallen after adjustment for inflation. The FCS's market share of total farm debt has declined to about 25 percent from 33 percent in 1982. Despite improved profitability, operating costs per dollar loaned have increased. In contrast, commercial banks and input suppliers are expanding their share of agricultural lending.

Now, in search of growth opportunities, the FCS is seeking new powers. This article provides historical background and economic considerations as context for these requests, noting that the FCS's status as a Government-sponsored Enterprise and high safety and soundness standards are important considerations.

Expanded Powers Sought in Export and Rural Lending

Expanding FCS authorities is not unusual (figure A-1). Over the last 77 years, Congress has broadened FCS authorities considerably beyond their initial scope of providing long-term, fixed-rate farm mortgages. Current authorities include lending to primary agricultural producers and their cooperatives, harvesters of aquatic products, certain farm-related businesses, certain rural homes in communities of less than 2,500 and certain rural utilities; underwriting or enhancing rural, tax-exempt municipal debt; and financing of certain agricultural exports.

In the last year the Farm Credit Council, the trade group for FCS institutions, has made several proposals to expand FCS lending authority. The additional lending authorities sought by the FCS can be grouped into two broad categories -- export and rural financing. The Banks for Cooperatives (BCs) are seeking broader powers to finance agricultural exports. All FCS institutions are seeking greater authority to provide financing for rural housing, infrastructure, and commercial enterprises.

Exports

Under current law, the Banks for Cooperatives may make loans for export and import purposes only to eligible farmer-owned cooperatives, parties engaged in international transactions with stockholders of the bank, or parties in which an eligible cooperative holds ownership interest. The BCs are seeking authority to finance any agricultural export originated in the United States. Even if restrictions based on cooperative

¹Economist and financial economist, respectively, Agricultural Finance Section, Agriculture and Rural Economy Division, Economic Research Service.

Figure A-1--Important Changes in FCS Lending Authorities

- **1916** Federal Land Banks and Federal Land Bank Associations created to provide long-term, fixed rate mortgages.
- **1923** Federal Intermediate Credit Banks created to provide source of operating credit.
- **1933** Production Credit Associations created to provide short-term operating credit.
Banks for Cooperatives created to finance purchasing and marketing cooperatives.
- **1971** Federal Land Banks allowed to lend up to 85 percent of market value of property (previous limit was 65 percent of agricultural use value of property).
Federal Land Banks and Production Credit Associations authorized to lend to nonfarm rural homeowners.
Loans to commercial fishermen authorized.
Farm-related business loans authorized.
Banks for Cooperatives authorized to finance rural electric and telephone cooperatives.
- **1976** Utility loans authorized for cooperatives acting as a public telephone or electric utility.
- **1978** Production Credit Associations authorized to make loans to commercial fishermen of 7 to 15 years.
- **1980** Banks for Cooperatives authorized to finance agricultural exports that benefit U.S. farmer-owned cooperatives.
- **1985** Banks for Cooperatives authorized to finance noncooperative Rural Electrification Administration (REA) borrowers.
- **1987** Banks for Cooperatives authorized to finance subsidiaries of eligible borrowers and, on a limited basis, joint ventures and partnerships in which an eligible borrower is involved.
- **1990** Banks for Cooperatives authorized to finance installation, expansion, and improvement of rural water and waste disposal systems.
- **1991** Banks for Cooperatives authorized to make federally-guaranteed loans for agricultural export to "newly emerging democracies" until September 1995.
- **1992** Prohibitions against underwriting or enhancing tax-exempt municipal debt for rural communities removed.
Banks for cooperatives authorized to make operating loans to rural water and sewer systems.

Sources: Hoag, W. Gifford, "The Farm Credit System: A History of Financial Self-Help," The Interstate Printers & Publishers, Inc. 1976. CoBank, "Cobank History," unpublished. Farm Credit Administration, FCA Handbook, 1992.

ownership are eliminated, the BCs plan to accord preferential treatment to financing exports of member cooperatives.

Rural Financing

Housing. Specific FCS institutions are currently authorized to finance moderately priced, single-family residences in non-metropolitan areas not exceeding a population of 2,500. Rural housing loans may not exceed 15 percent of the total of all loans outstanding in any bank or association. The FCS is seeking to increase these limits to a maximum of either 20,000 or 25,000 in population and a total loan portfolio limit of 20 percent.

Infrastructure. The FCS Safety and Soundness Act of 1992 provided Banks for Cooperatives with the authority to install, maintain, expand, improve or operate water and waste disposal facilities in rural areas. The act also removed the prohibition on FCS enhancement of certain municipal tax-exempt debt. The FCS is seeking authority to make water purification and sewage treatment loans and to extend Bank for Cooperatives' financing of utility services to include purchase of services from utility-like providers. In addition, the FCS is seeking administrative changes in IRS regulations that prevent it from enhancing tax-exempt debt despite the legislative change.

Business. Currently, farm-related businesses must serve the on-farm operating needs of farmers and ranchers to qualify for FCS financing. Loans to borrowers that purchase or sell inputs from farmers and ranchers are prohibited unless 80 percent or more of the inputs for the farm-related service originate from a member borrower or cooperative. Often, businesses that process or market the products of cooperatives or member-borrowers do not meet the 80 percent of inputs requirement and, therefore, are not eligible for farm-related lending. The FCS is seeking additional farm-related business lending authorities. The FCS proposes that such businesses be required to establish a materially beneficial link to farmer-owned member cooperatives in order to be eligible for financing.

Equity Investments in Rural Development Authorities. To address the revitalization of rural America proposed by the Clinton Administration, the FCS is requesting authorization to make equity investments in rural development authorities to promote rural economic growth. These development authorities would provide equity capital and financial services to beginning farmers, agricultural producers, and rural entities attempting to comply with environmental mandates. The FCS seeks authority to make equity investments in such organizations and to discount and participate in loans with them. Banks and other financial institutions could also make equity investments in rural development authorities.

Public Policy Purposes and Benefits

The FCS is the successor to the Federal Land Banks, which were, in 1916, the first Government-sponsored Enterprise (GSE) created by Congress to provide reliable, reasonably-priced credit to farmers. Since then Congress has created other GSEs to provide credit to farmers (Farmer Mac), homeowners (Freddie Mac, Fannie Mae, and the Federal Home

Loan Banks), colleges (Connie Lee) and college students (Sallie Mae). Like the other GSEs, the FCS is privately owned and operated, limited to a specific economic sector, and enjoys special benefits to facilitate achieving its public policy purposes. GSEs are an integral part of Federal assistance to sectors favored by the Federal Government—agriculture, housing, and higher education. These sectors also receive Federal assistance in the form of grants, price supports, direct and guaranteed loans, and other subsidies.

The FCS and other GSEs were created to correct credit market imperfections stemming from banking laws and regulations that limited the activities and geographic span of banks and thrifts. Interstate banking was prohibited; branching was prohibited or restricted in most States, forcing banks and thrifts to rely heavily on local deposits. Because local deposits were banks' and thrifts' primary source of funds, credit availability and pricing varied depending on the balance of deposits and local lending needs. In addition, restrictions on branching and chartering of banks led to imperfect competition in some local banking markets.

Agricultural lending was not attractive to commercial banks compared with other commercial loans that were thought to be more profitable, easier to administer, and safer. Banks' reliance on short-term funding sources made longer-term mortgage loans too risky. Agricultural income was more volatile than income of many other commercial businesses, making small farmers a higher risk. Nor did agricultural lending appeal to many large investors, who generally preferred investments that were liquid and were sold in larger denominations. In contrast, agricultural loans were relatively small, could be prepaid at unpredictable times, and carried significant risks of default.

The FCS helps equalize the cost and availability of credit in local markets by offering credit to farmers on fairly uniform terms nationwide. In theory, its mandate to serve agricultural producers nationwide enhances competition in local markets. FCS securities appeal to investors because they are highly liquid, sold in large denominations, carry fixed maturities, and are considered safe, especially given an implicit Federal guarantee based on its GSE agency status.

The FCS enjoys considerable benefits related to its GSE status including certain tax exemptions and special status for FCS obligations. District Farm Credit Banks and lending associations that specialize in long-term farm mortgages (Federal Land Bank Associations and Federal Land Credit Associations) are exempt from all taxation except that on real property. (Banks for Cooperatives and other lending associations are fully taxable.) Interest earned on FCS obligations is exempt from State and local income taxes.

The special status of FCS securities provide further benefits that keep the cost of funds lower than it would otherwise be. All GSE securities can be used as collateral for public deposits and for borrowing from Federal Reserve Banks and Federal Home Loan Banks. This makes them attractive investments for banks and thrifts. In addition, FCS securities can be held in unlimited amounts by national banks and the Federal Reserve can buy and sell them in open market operations. They are issued and payable through the Fed's book-entry system,

which allows funds and securities to be electronically traded. Despite the absence of any explicit statutory or contractual Federal guarantee, the presumption of an implicit Federal guarantee remains universal.

Safety and Soundness Considerations

The U.S. General Accounting Office (1990) cites the farm credit and thrift crises as examples of the effects of inadequate Federal supervision of the risk-taking and capital levels of financial institutions. However, expansion of powers into new lines of business also played a role in both crises. In the early 1980s, Congress allowed thrifts to take equity positions in real estate development and invest in noninvestment grade (junk) bonds without requiring appropriate adjustments to capital levels or increased supervision. The FCS suffered substantial losses from loans to fishermen in the early 1980s, just a few years after authority to make such loans was expanded in 1978. In addition, some authors suggest at least part of the run-up and collapse of land values can be attributed to FCS practices (Carey). Financial supervision was strengthened after each crisis, but only after substantial taxpayer assistance had been provided.

After the farm credit crisis, the Farm Credit Administration (FCA) was reorganized by Congress as the FCS's arm's length regulator. In addition, the Farm Credit System Assistance Board (FCSAB) and its successor, the FCS Insurance Corporation (FCSIC), were established to oversee the liquidation or recovery of financially weak FCS institutions. To do so, the FCSAB was authorized to borrow from the Treasury. Ultimately, \$1.26 billion in special debt was issued to fund the FCS's recovery. In 1992, Congress passed the FCS Safety and Soundness Act to insure repayment of this debt and Treasury-paid interest in a timely manner. The FCS is expected to meet these requirements.

To avoid repeating history, any expansion of FCS powers should be accompanied by appropriate authority for its regulator to ensure continued safety and soundness. Because investor funds are directly insured by the Insurance Fund, indirectly by joint and several liability, and implicitly by the Federal Government, investors cannot be expected to discipline risk-taking by FCS institutions. Joint and several liability means that FCS banks are individually and collectively responsible for repaying holders of systemwide securities. It is unlikely that the additional premium assessed on nonaccrual loans to fund the Insurance Fund will be sufficient to discourage risk-taking. Since its reorganization in 1985, however, the FCA has emerged as the strongest GSE regulator (U.S. GAO, 1994).

Another safety and soundness concern relates to the FCS Insurance Fund. The FCS Insurance Fund is designed to protect bondholders from losses on systemwide security issues and to mitigate the problems encountered with joint and several liability during the farm debt crisis. The FCSIC will assess premiums on FCS banks until the fund reaches its secure-base of 2 percent of insured FCS liabilities. To the extent that expanding powers increases lending opportunities for the FCS, it will also lead to an increase in insured systemwide securities, extending the time required to achieve the

Insurance Fund's secure-base amount of 2 percent of insured liabilities.

What About Market Imperfections?

Although the initial justification for GSEs was in terms of market imperfections, the FCS's current requests are not. However, good reasons exist to suspect rural credit markets are less than efficient. Regulations that prevent entry and competition exist in many states. Some twenty-five percent of rural counties are served by two or fewer commercial banks and may have markets that are too small to support many competitors. In addition, some aggregate characteristics of rural banks suggest efficiency gains could in rural credit markets are possible. For example, on average nonmetro banks are more profitable, better capitalized, smaller and have lower loan-to-deposit ratios than their metro counterparts (Mikesell). These statistics could reflect either conservative lending patterns associated with inability to diversify risk or a lack of qualified borrowers.

Thus, rural banks' behavior is consistent with, but not proof of, competitive inefficiencies including inability to diversify risks. Sullivan finds evidence that borrowing costs are lower in more competitive markets. McAllister and McManus find that small banks' loan portfolios may be unable to diversify risks. While these results are not conclusive, they do suggest that efficiency gains could enhance rural economic activity. If these inefficiencies are preventing creditworthy borrowers from obtaining loans, rural economic activity suffers. If either is true, expanding FCS powers or removing banking regulations that limit risk diversification or market competition would be an appropriate response.

Concluding Remarks

Freshwater and Riemenschneider and Freshwater suggest that without expanded powers the FCS may be unable to compete with other rural lenders. This argument is ironic given that previous market imperfections were the major impetus for creation of the FCS. If their arguments are valid, perhaps the imperfections have largely been eliminated and removing the restrictions and benefits of agency status would be an appropriate response. Under this scenario, care must be taken to protect bondholders from capital losses caused by the increased riskiness and decreased profitability following loss of agency status and accompanying tax benefits.

If imperfections continue to exist in rural credit markets, expansion of FCS powers could have benefits for rural and national economic growth and would be consistent with historical precedent. If FCS powers are expanded, care must be taken that appropriate supervision and regulation ensures FCS safety and soundness to protect borrowers, bondholders, and taxpayers from losses.

An alternative to expanding FCS powers could be removal of regulation or other barriers to entry that prevent rural credit markets from attaining competitive efficiency. Recent research has shown that relative inefficiency among FCS associations is large compared to relative inefficiency among commercial banks (Collender). This high level of relative inefficiency indicates that some benefits of GSE status are

not conveyed to FCS borrower/owners. The FCS's corporate structure facilitates inefficiency because usual ownership rights to retained earnings are not vested and FCS institutions are generally protected from intrasystem competition.

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Measuring Farm Sector Interest Rates

by

Ted Covey, Paul Sundell, and James Ryan¹

Abstract: As a capital-intensive industry, the farm sector relies heavily on debt to finance agricultural production. Interest rates on farm loans represent the cost of debt to the American farmer. An understanding of how those rates are assembled and reported is essential before they can be interpreted and contrasted across time and lenders.

Keywords: Interest rates, data, credit, lender

Introduction

The purpose of this article is to assist users of the interest rate data reported in the annual lender issue of Agricultural Income and Finance: Situation and Outlook Report (AIS). It is important that users of any data base understand how the data is collected, aggregated, and calculated. In other words, a familiarity with how a data series is derived is necessary before it can be meaningfully interpreted.

This documentary is structured around the financial institutions that serve the farm sector: commercial banks, lenders in the Farm Credit System (FCS), the Farmers Home Administration (FmHA), and life insurance companies. In accordance with conventional terminology, interest rates for real estate loans are considered long-term rates, while interest rates on nonreal estate loans are considered short-term rates.

Classifying Farm Loans

Farm loans can be classified as nonreal or real estate according to the loan's time-to-maturity, purpose, or collateral. Regardless of which of the 3 criteria are used, they result in similar groupings.

Regarding time-to-maturity, loans are usually classified as short-, intermediate-, or long-term. Short-term loans are loans for 1 year or less. These loans can be further classified as monthly (0 to 3 months), seasonal (3 to 9 months), or annual (9 months to a year). Intermediate-term loans are usually repaid between 1 to 10 years. This designation includes loans that mature in 1 year but are expected to be renewed annually if the borrower's financial situation warrants it. As the relative importance of capital assets has increased over time in agriculture, the relative importance of intermediate-term loans has increased as well. Long-term loans are usually extended for 10 to 30 years.

Classifying loans by purpose depends on how the proceeds of the loan are to be used and coincides with classifying loans

on the basis of their term-to-maturity. Real estate or mortgage loans, which are typically long-term, are used to purchase a farm, additional land, or long-life improvements such as buildings and irrigation equipment. Loans for purposes other than real estate are referred to as nonreal estate, production, operating or commercial loans. These loans coincide with short-term loans (used to purchase operating inputs such as seed, feed, and fertilizer) and intermediate-term loans, which are used for capital assets such as farm machinery and equipment.

Short- and intermediate-term (nonreal estate) loans to farmers are provided by agricultural banks, the FCS, and the FmHA. Long-term (real estate) loans are provided by commercial banks, life insurance companies, the FCS, and the FmHA.

The third means of loan classification is loan security. Long-term loans are generally secured by mortgages on real estate. Long-term loans may also be secured by installment land contracts. Normally, title passes to the borrower at the time of sale. In land contracts, title remains with the seller to be delivered at a future date upon payment of some specified sum. Short- or intermediate-term loans may be secured or unsecured. Secured loans have movable property as collateral in case of loan default. This property can be physical or financial assets.

Macroeconomic Interest Rates

Farm loan rates are influenced by a number of factors inside and outside the agricultural sector. Farm loan rates are influenced by the returns available on default-free securities (typically Treasury securities) of similar maturity, the expected rate and magnitude of farm loan defaults, and the risk premium demanded by lenders. Factors such as the cost of funds to financial institutions, the availability of competing risky assets, the expected overall level of bank profitability, liquidity of the loan, and the farmer's net worth also influence the cost of capital on farm loans.

The cost of funds (especially deposit funds), strongly influences agricultural loan rates. Smaller banks are especially dependent on consumer time deposit accounts, which adjust slowly to changing open market rates. Expected returns and

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the availability of nonagricultural lending opportunities also influence the returns and funds available for agricultural lending. Bank liquidity, the surplus of bank assets easily convertible into cash with little risk of loss of asset value, also influences the willingness of banks to bear risk in general. In addition, the expected overall profitability and net worth of the bank influence the risk premium on farm loans. Generally, risk aversion and risk premiums decline as overall bank liquidity and real net worth increase. Finally, the expected default risk in farm lending and the relative risk of agricultural lending relative to nonagricultural lending also influence farm loan rates.

Short-term: Bank Prime

Historically, the prime lending rate served as the benchmark on short-term business and agricultural loans. It acted as a base rate banks charged their most creditworthy customers. Other borrowers typically were quoted rates at spreads over the prime depending on their individual risk characteristics and the type of loan involved. The prime's role in lending has decreased over the past 15 years. It is now only one benchmark among several (e.g. LIBOR, CDs, and T-bill rates). The prime tends to be the base lending rate for small businesses, households, and farmers with limited non-bank borrowing alternatives. The prime tends to reflect the bank's short-term average cost of funds with a markup. Banks today use the prime to inform potential borrowers of the lender's basic cost of loan funds.

The prime is not as sensitive as money market rates, which fluctuate daily in response to short-term changes in supply and demand. Rather, its movements tend to be infrequent, changing only by increments of at least one-quarter of a percentage point. Major banks tend to change their prime rate in response to increasing differentials with selected open market money rates that signal prolonged changes in the bank's cost of funds.

The data presented in AIS are monthly averages computed by multiplying each "predominant" prime rate (the rate charged by the majority of 30 large money market banks) by the number of days it was in effect during the month, summing these products and dividing by the number of days in the month. Data contained in this series are not seasonally adjusted. The annual averages are unweighted averages of the quarterly series.

Short-term: 6-Month U.S. Treasury Bills

Treasury bills are direct obligations of the U.S. Government. By law, they must have an original maturity of 1 year or less. While there are several types of T-bills, 6-month T-bills provide the largest amount of revenue for the Treasury and are comparable in term to most short-term farm loans. They are auctioned weekly, hence the marketplace, not the U.S. Treasury, sets bill prices and yields. Due to the absence of default risk and their superior marketability, T-bill yields are the lowest in the money market. They are, however, subject to changes in inflationary expectations. Because of the tremendous size of the T-bill market, conditions there are quickly translated into other credit markets. The AIS series represents

the auction average investment yield calculated as the percentage per annum.

Long-term: U.S. Treasury Bonds

Treasury bonds are a popular investment medium because of their safety and liquidity. Nevertheless, substantial market risk is involved with longer-term Treasury bonds due to their longer maturities and thinner markets relative to T-bills. Hence, T-bond returns are more volatile than T-bills, creating greater uncertainty for investment returns.

The U.S. Treasury bond series measures the unweighted average yield on fully taxable, long-term, U.S. Treasury bonds. Bond yields are computed by the U.S. Department of the Treasury, based on prices reported to it by the Federal Reserve Bank of New York. Beginning in April 1953, yields are based on a composite of daily closing-bid quotations in the New York over-the-counter market. Before April 1953, they were based on the mean of the closing bid-and-ask quotations. Since then, the series has represented the averages of daily yields of bonds that are neither due nor callable for at least 10 years.

The AIS series represents yields on actively traded issues adjusted to constant maturities. Yields on Treasury securities at "constant maturity" are interpolated by the U.S. Treasury from the daily yield curve. This curve, which relates the yield on a security to its time to maturity, is based on the closing market bid yields on actively traded Treasury securities in the over-the-counter market. These market yields are calculated from composites of quotations reported by 5 leading U.S. Government security dealers to the Federal Reserve Bank of New York. The constant maturity yields are read from the yield curve at fixed maturities, currently 1, 2, 3, 5, 7, 10, 20, and 30 years. This method provides a yield for a 10-year maturity even if no outstanding issue has exactly 10 years remaining to maturity.

Farm Sector Interest Rates

Agricultural Bank Rates

Agricultural banks (defined by the Federal Reserve as commercial banks that have a proportion of farm loans greater than the unweighted average of all banks) hold over half of all commercial bank agricultural loans. About 17 percent of all commercial banks qualify as agricultural banks. This figure is seasonal, peaking at midyear and declining as loans are paid following harvest. Large banks (those with more than \$500 million in assets) hold high levels of farm loans, although farm loans represent a small proportion of their total loan portfolio.

The rates on nonreal estate loans represent the average annual rates on new loans made during the first full week of the second month of the quarter. The rates are effective (compounded) annual interest rates calculated from the stated rate and other terms of the loans and are weighted by loan size. These loans are classified according to their purpose. The AIS data series on farm loans of \$1,000 or more made by agricultural banks are derived from quarterly sample surveys conducted by the Federal Reserve System during the first full

week of the second month of each quarter. These surveys began in 1977. Data obtained from the sample are expanded into national estimates for all agricultural banks. Prior to August 1989, the farm loan survey was part of a broader survey of the terms of lending by a sample of 340 agricultural banks. A subset of 250 banks was asked for information regarding agricultural lending. About 150 typically reported at least one farm loan.

Since August 1989, the data have been drawn from a new, redesigned sample of 250 banks that is no longer part of the broader survey. In the new sample, banks are stratified according to their volume of farm lending; previously, they had been stratified according to their volume of business loans. The sample data are expanded into national estimates for all commercial banks. The breakdown of national estimates into large and other bank categories may have been affected by the new sampling procedures instituted in August 1989. These data exhibit variability due to sampling error and are sensitive to the occasional appearance of very large loans in the sample.

Data for real estate loan rates are taken from quarterly surveys of agricultural credit conditions at five Federal Reserve District Banks (Chicago, Dallas, Kansas City, Minneapolis, and Richmond). While these surveys are conducted at the end of each quarter, the day within the quarter used to represent the interest rate for that quarter differs from one district bank to the next. The size of the survey done by each District Bank differs considerably. In addition, the five surveys differ in subject matter covered, wording of basically similar questions, and type of banks covered. The districts also have differing definitions of what is required to qualify as an agricultural bank, so that a bank that qualifies as an agricultural bank in one district may not in another. The series is created by taking an unweighted average of the quarterly rates reported in the Federal Reserve Board's *Agricultural Finance Databook* for the most common interest rate on long-term real estate loans.

FCS Interest Rates

The FCS is the second largest lender to U.S. farmers. The part of this system that lends directly to farmers includes the district Farm Credit Banks (FCBs) and local lending associations.

FCS nonreal estate rates include both short- and intermediate-term loans. The loan maturity ranges from 4 weeks to 10 years, although most intermediate-term loans for machinery and breeding livestock are in the 5-year range. Floating-rather than fixed-interest rate loans are the rule. Real estate loans can be made with maturities from less than 1 to 40 years. Most real estate loans are used for purchasing new real estate, improving land, acquiring buildings, or refinancing previous real or nonreal estate loans. The principal lending requirement is that the loan is secured by a first lien on the asset.

Each district lender monitors its cost of funds on a monthly basis for possible changes in rates. Most of the Farm Credit Districts have developed a system of multiple rates (called tiers) which reflect differences in borrowers' credit risk.

The rates reported in AIS come from different sources as the responsibility for collecting FCS data has changed over the years and as structural changes in the FCS itself have altered its data-gathering and reporting techniques. The sources and manner of collection for these new loan rates can be divided into three periods. For 1970-83, the rates are calculated by the Economic Research Service (ERS) of the U.S. Department of Agriculture using FCA data for real estate loans made by FLB's as averages of district rates quoted on the first day of the month, unadjusted for loan fees and required stock purchases. Rates for nonreal estate loans made by Production Credit Associations are calculated by ERS using FCA data and include service fees, are unadjusted for required stock purchases, and are as of the first day of the quarter. For 1984-88, rates were obtained directly from the FCA.

For 1989 to the present, the annual rates represent an unweighted average of quarterly averages loan rates of reporting FCS district lenders through an informal survey by ERS. ERS requests quarterly interest rates on new real estate and new nonreal estate loans annually. The participation of FCS lenders in the survey is voluntary. Hence, the type of loans used by one district lender in calculating and reporting real and nonreal estate interest rates may not be the same as the type of loans used by another. The number of district banks participating varies year to year.

FmHA Interest Rates

FmHA is a government lending agency under the authority of the U.S. Department of Agriculture. FmHA farm lending occurs directly and through loan guarantees with other farm lenders. Direct loans account for about one-third of FmHA's farm debt and are expected to decrease relative to guaranteed lending.

FmHA direct farm loans are made to individuals and associations. Loan program categories include Farm Ownership, Soil and Water, Operating, Emergency Disaster, Indian Tribeland Acquisition, and Resource Conservation. The largest proportion of FmHA loans are for Farm Ownership, Operating, and Emergency Disaster. Interest rates on the different loan types vary considerably.

As of 1978, direct loans can be made at a regular rate or a special lower rate called the limited-resource loan. The limited-resource rate is a subsidized rate available to the most needy borrowers, as determined by the Secretary of Agriculture. Since 1978 the majority of the direct loans in the farm ownership and operating loan categories have been made at this limited-resource rate. There also exist special rates set by Congressional statute for emergency loans or loans to beginning farmers and ranchers.

Farm ownership loans are categorized for AIS purposes as real estate and are used mostly to buy or refinance farmland. Loans are extended for up to 40 years. Farm operating loans are classified as nonreal estate loans and are extended for up to 7 years.

Rates charged to farmers on regular loans are largely based on the Federal Government's cost of funds plus a markup not to exceed 100 basis points. The rate on 5-year Treasury notes

is used for operating loans and the rate on 25-year Treasury bonds is used for farm ownership loans. These rates are reviewed monthly. When Treasuries rates have changed sufficiently, FmHA rates are reset about 50 basis points above their new corresponding Treasury rate.

Following the Food, Agriculture, Conservation and Trade Act of 1990, limited-resource interest rates are set at half of the current average yield on U.S. Government obligations having maturities of 5 years, but not less than 5 percent. The Secretary of Agriculture has the option of adding up to 100 basis points to the calculated rate.

The quarterly rates for real and nonreal estate loans reported in the annual lender issue of the AIS are for new direct loans at regular and limited resource rates. Quoted rates are calculated by weighting rates by the length of time each was in effect during the quarter. Hence, the rate reported may not have been the actual rate at which loans were made.

Life Insurance Company Interest Rates

Life insurance participation in farm lending has been declining over time. Currently, only about six life insurance companies (Metropolitan Life Insurance Company, The Travelers Realty Investment Company, Prudential Insurance Company of America, Equitable Agri-Business, John Hancock Financial Services, and Mutual of New York) are active in farm loan markets. The farm lenders are among the largest life insurance companies. Farm mortgage assets represent an insignificant portion of the industry's total asset base (0.6 percent in 1991) and only 2 percent of the industry is actively lending to farmers. Life insurance companies prefer larger loans of at least \$500,000.

Life insurance companies deal strictly with real estate lending. Mortgages with graduated payments, adjustable rates, and shared appreciation are examples of recent innovations in life insurance company farm loans. In shared appreciation loans, the borrower agrees to give the lender a percentage of the capital gains on the land in return for a lower interest rate. Life insurance company rates for new farm loans are estimated by ERS from survey data.

Interest Rates on Outstanding Farm Debt

These rates are averages on outstanding debt for nonreal estate, real estate, and total farm debt. These series are for all loans to farmers and include loans made by traditional financial lenders, individuals and other, farm input suppliers, and the Commodity Credit Corporation. Data for all series prior to 1988 are computed from data in the most recent *Economic Indicators of the Farm Sector*. Data after 1988 are based on average interest rates for each lender reported by farm operators in ERS's annual Farm Costs and Returns Survey, weighted by the average debt outstanding for each lender. Because these are rates on outstanding loans, their changes will be less volatile than changes in rates on new loans.

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Indicators of Financial Stress in Agriculture Reported by Agricultural Banks, 1982-93

by

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Abstract: Annual farm credit situation surveys have been conducted by the American Bankers Association (ABA) for many years. Successive survey results provide a picture of changing farm credit conditions at agricultural banks through time. Results show that, by most indicators, the levels of farm financial stress peaked in 1985-86. There was a period of strengthening farm sector fundamentals in 1987-89 with resultant stress levels for most indicators in the 1990's below 1982 levels. Exceptions exist for the loaned-up-to-the-limit and bankruptcy rates indicators. Data are presented for both regions and type of farming.

Keywords: Credit, debt, farm finance, banks, financial stress

Introduction

The purpose of this article is to analyze the results of a unique source of information regarding farm sector and agricultural lender performance, namely the American Bankers Association's (ABA) annual midyear agricultural credit survey. Mid-year surveys of agricultural banks have been conducted by ABA for many years. These data are unique in that the focus is not strictly on the farm sector or agricultural banks, but on how farm financial stress is viewed by commercial banks. Beginning in 1982, questions on farm financial stress were added to the ABA survey and ERS began purchasing the results. There have been changes to the survey through time but the focus of this article is on the results of the farm financial stress questions that were maintained throughout the period of analysis.

The Setting: The 1980's Farm Financial Crisis and Its Aftermath

The 1970's were generally good times for agriculture, with optimistic expectations of worldwide demand for U.S. farm products. Agricultural exports expanded as the dollar declined in value. Prices for farm commodities rose early in the decade in response to strong demand for feed grains and wheat. Production and investment expanded in a climate of low, and at times negative, real interest rates. In this economic boom, farm borrowing grew and land values increased rapidly. Lenders, consultants, and others often encouraged additional borrowing to finance expansion. Rising machinery investment levels, combined with land price and other cost increases, resulted in a generally higher cost structure for agriculture.

The early 1980's saw a rapid turnaround in the forces that had caused the rapid economic expansion. Back-to-back recessions in 1980 and 1981-82 hit the farm sector hard. A large increase in the value of the dollar reduced the demand for U.S. farm exports. Other countries expanded production in response to generally higher world prices. In the United States, the cost of producing commodities increased into the early 1980's. Monetary policies designed to reduce inflation prompted interest rates to rise to unprecedented levels in the early 1980's. Farm input costs increased, while net farm income generally fell. Returns to land declined due to a reduction in exports and commodity prices, a high cost structure, and even lower returns expected in the future. The declining farmland values weakened farmers' equity positions. Some farmers were unable to make principal and interest payments on the large amount of debt acquired during the 1970's boom period.

The result of these numerous interrelated economic changes occurring in the 1980's was the most severe financial stress to hit the farm sector since the Great Depression of the 1930's. The financial problems of the farm sector were increasingly passed to farm lenders in the 1980's. Losses of principal and interest payments on delinquent, uncollectible farm loans (net chargeoffs) increased during the 1980's. One estimate indicates a cumulative farm loan loss (net chargeoffs) for all farm lenders during the 1984-89 period of \$19.8 billion (7).² During the 1980's, agricultural bank failures became a concern, the FCS encountered such major challenges that \$1.26 billion in Federal assistance was required, FmHA experienced major loan write-offs, and insurance companies faced their biggest farm loan difficulties in 50 years.

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²Italicized numbers in parentheses identify literature cited in the Reference section at the end of the article.

Agricultural lenders have faced a rapidly evolving farm sector lending environment during the past 15 years (5, 6, 7). In a nutshell, the 1975-79 period was one of escalating farm sector costs following the boom period of the early 1970's. A farm recession followed during 1980-83 with a cost squeeze, plummeting asset values, and problems with excess debt. The 1984-86 period was one of farm debt restructuring followed by strengthening economic fundamentals during 1987-89.

The 1990's have been characterized by a more conservative farm lending mode. Agricultural lending has not returned to the way it was prior to the event-filled 1980's. Producers have been careful in acquiring new debt and lenders are more carefully scrutinizing the creditworthiness of borrowers. Credit standards have tightened but farmers who are good credit risks can acquire credit.

Bankers Survey Tracked Stress

Throughout this period of fluctuating conditions the American Bankers Association (ABA) has surveyed agricultural banks concerning the condition of their agricultural loans and customers. The purpose of the survey is twofold: to provide information on current and developing credit conditions as well as to focus on key management and policy issues identified by agricultural bankers (1). The ABA agricultural credit survey project was initiated in the 1950's and has been conducted generally in the same manner since the early 1960's. The 1993 survey was the thirtieth annual survey of the current series of ABA's midyear farm credit survey or what is called in recent years ABA's farm credit situation survey (1).

Each year a questionnaire is distributed to a sample of commercial banks that qualify as agricultural banks according to the ABA's criteria. To qualify as a farm bank, the institution must have either \$2.5 million or more in farm production or real estate loans or have more than 50 percent of its loan portfolio in farm loans. This definition is somewhat broader than the ones used by the bank regulatory agencies to define agricultural banks. For example, the ABA identified 4,920 farm banks in 1993 compared with 3,819 for the Board of Governors of the Federal Reserve (FRB) and 3,020 for the Federal Deposit Insurance Corporation (FDIC). The FRB classifies banks as agricultural if their ratio of farm loans to total loans exceeds the unweighted average of the ratio at all commercial banks on a given date (16.98 percent on June 30, 1993). The FDIC criterion is a 25-percent or greater ratio of agricultural to total loans.

The ABA surveys from a stratified random sample of agricultural banks grouped by total asset value and region. (ABA regions are discussed below.) Fifty percent of the universe is sampled each year. In 1993, the universe of banks totaled 4,920 banks from which 2,506 banks were surveyed; usable questionnaires were received from 484 banks or 19.7 percent of the sample. Response rates obtained by the ABA vary considerably. Among the factors influencing response rates are the length and complexity of the questionnaire, survey topic(s), bankers' perception of survey utility, project schedule (time of year), the selection of target groups, and the follow-up efforts conducted by the ABA. ABA reports that each year a majority of returned surveys represent different banks.

Completion rates for all of the various 30 surveys for all purposes (not just the midyear farm credit situation survey) conducted by ABA annually range from 15 to 70 percent, depending on the criteria mentioned above. The (one-approach-only) response rate of 19.7 percent achieved by the 1993 farm credit situation survey fell into the normal range for a mail survey of this type and size.

The lowest response rate to the ABA farm credit situation survey in recent years was the 415 banks for a 16.6 percent response reported in 1992. Like 1993 this represented the one-approach-only technique with no follow up because of ABA resource constraints. Historically, the response rate has been much higher because of better follow up. For example, in 1982 some 960 banks responded for a 36.3 percent rate. Also, during the 5-year 1986-90 span the respective chronological response rate was as follows:

<u>Year</u>	<u>Responding banks</u>	<u>Response rate</u>
1986	939	34.2%
1987	961	42.6%
1988	749	33.0%
1989	657	26.7%
1990	809	33.0%

The data for each year are compiled into total, average, or median responses that can only be used to represent the respondent banks.

The ABA farm credit survey has contained a variety of questions that have changed over the years in response to changes in the current issues facing agricultural bankers. During the past decade, questionnaires have requested information on: the quality of the loan portfolio, losses, borrowers' ability to obtain financing, farmers going out-of-business and bankruptcy, business development and competition, interest rates/loan fees, cost of regulatory maintenance, FmHA-guaranteed loans, appraisals, the Financial Standards Task Force Report, the examination process, and crop insurance.

Beginning in 1982, the survey has included questions that address the discontinuance of financing, liquidations, bankruptcies, and other financial stress items. ERS has purchased selected items of the ABA survey data set from ABA each year since that date. The successive survey results permit the examination of farm credit conditions at agricultural banks through time. A core of financial stress questions have been maintained exactly throughout the 1982-93 period despite many other changes in the questionnaire. Portions of the survey results have been presented earlier in various outlets (1, 2, 4, 8, 9, 10). Results are reported in their entirety in this article.

One caveat regarding the survey is important to note. Bankers' responses to the survey likely focus on commercial-sized farms that are viewed as actual or potential bank customers. They are not concentrating on the smaller part-time, hobby, or subsistence farms that account for the majority of farms and that just meet the U.S. Bureau of the Census definition of a farm (\$1,000 or more annual sales). Therefore, the stress numbers should not be multiplied by the total census number

of farms but instead be viewed as relative indicators through time.

It is important to note the characteristics of the agricultural bank universe and, hence, farm bank respondents when interpreting the data presented in this article. The universe of ABA agricultural banks is biased toward smaller banks as one would expect given the selection criteria. In 1993, the ABA universe totaled 4,920 agricultural banks or 44.2 percent of the 11,140 U.S. banks operating that year. Some 59.1 percent of the 484 respondents were banks having \$50 million or less in assets. A total of 32.0 percent of the respondents were located in the Corn Belt and another 30.0 percent in the Plains. Thus, the sample population tends to reflect small Midwestern banks. The agricultural banks in the South and West are more concentrated in the larger asset categories.

U.S. Farm Credit Survey Results

The indicators of farm financial stress for the Nation as a whole show a picture of stress in 1982 when the series begins (table C-1). The results reflect the farm recession and cost squeeze phase of the 1980's. The level of stress increased through the 1985-86 period as the farm sector adjusted its cost structure including restructuring its debt load. Stress indicators generally fell rapidly during the 1987-89 "strengthening fundamentals" phase of the crisis and have reached quite low levels in the 1990's as both lenders and farmers continued their conservative approach toward credit.

The volume of farm loans delinquent 30 days or more was 3.9 percent in 1982, peaked at 6.0 percent in 1986, and fell to 1.1 percent in 1993. The banks discontinued financing for 3.3 percent of their farm borrowers during the year ending June 1982, compared with 5.6 in 1986, and 1.7 in 1993. The proportion of farm customers loaned up to their practical limit, another measure of creditworthiness, peaked at 38.8 percent in mid-1986, a record closely followed by 36.7 percent a year earlier. This rate declined to 22.6 percent by 1988 but subsequently rose and stood at 34.6 percent in 1993.

Agricultural banks estimated that 6.2 percent of farmers in their lending areas went out of business during the year ending in June 1986, up from 2.2 percent in 1982. This figure dropped to 2.2 percent by 1990 as the crisis passed and was 3.1 percent in 1993. There is some evidence that this is a lagging indicator of the farm sector's economic performance. Some 70.1 percent of the farmers were thought to have left in 1985 because of financial problems (liquidation or foreclosure). This period high compares with 60.5 percent in 1982 at the beginning of the data series and the low of 34.5 percent reported in 1990. Responding bankers estimated that 4.2 percent of local farm operators filed for bankruptcy during July 1985-June 1986; this had increased from 0.8 percent in 1982. After the 1985-86 peak, the percentage filing for bankruptcy dropped to 1.0 percent in 1990 and ended the period at 1.9 percent in 1993.

Regional Farm Credit Survey Results

The ABA divides the Nation into four geographic regions for analytical purposes regarding the farm credit situation survey (figure C-1). The ABA configuration is unique following a

different pattern than that of the U.S. Bureau of the Census with its 4 divisions and 9 regions or the USDA with its 10 farm production regions. The ABA allocates Michigan, Minnesota, and Wisconsin to the 11-State Northeast area to form a unique 14-State Northeast region (figure C-1). This was initiated a number of years ago in order to combine the three dairy-producing Lake States with the other dairy producing areas of the traditional Northeast.

The survey reveals some diversity in farmers' financial experience (table C-1). Indicators of farm financial stress generally peaked across the Nation in 1985-86. The South, which generally led in most peak indicators of financial stress was hit hard by the economic stress. Drought, financial stress of many cotton farms, and contraction of the energy sector may have accentuated southern farmers' difficulties. Their situation improved dramatically in the late 1980's. For all regions, stress indicators in the 1990's are at low levels except for the share of farm borrowers loaned up to the practical limit and the bankruptcy rate. The former may reflect bankers employing more strict loan rules. Bankruptcy rates continue higher than they were in 1982-83 indicating a lagged response as individual cases are worked out through time.

Type-of-Farming Area Survey Results

The ABA asks responding banks to indicate the most important type of farming in which the bank's agricultural borrowers are currently engaged. When responses are grouped by type of farming area, considerable diversity in farmers' financial stress is evident (table C-2). Areas dominated by cotton farms showed the peak levels of financial stress which usually occurred in 1985-86, according to the banks' responses. Beef cow-calf areas also showed high levels of peak financial stress, but generally below levels exhibited by the cotton farms. All type-of-farming areas have stress indicators in the 1990's that are at low levels except for the share of borrowers loaned up to the practical limit and the bankruptcy rate. This situation parallels that exhibited by the regions and for the same reasons. Loan standards are now more conservative thus making a borrower more likely to be "loaned up" and bankruptcies are lagged through time after the initial peak financial stress.

Conclusions

During the 1980's, farmers went through the worst financial period since the Great Depression. The crisis generated much more detailed analyses of both the farm sector and agricultural lenders regarding their financial performance. Beginning in 1982, questions on farm financial stress were enhanced in the American Bankers Association's (ABA's) midyear farm credit survey. These questions were maintained in subsequent surveys although other changes were made in the questionnaire. This unique source of information for the 1982-93 period enables one to see how farm financial stress was viewed by commercial banks through time. Survey results show that by most measures, the levels of farm financial stress peaked in 1985-86. Farm sector economic fundamentals strengthened in 1987-89 with the resultant financial stress levels for most indicators in the 1990's below 1982 levels. Stress indicators in the 1990's are at low levels except for the share of farm borrowers loaned up to the practical limit and the bankruptcy rate. The former may reflect bankers employing stricter loan

Table C-1--Indicators of financial stress in agriculture as reported by agricultural banks, by region, 1982-93 1/

	United States											
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 7/	Percent											
	3.9	3.7	4.5	5.3	6.0	2.7	1.6	1.5	1.3	1.8	1.2	1.1
Banks' farm borrowers who had bank financing discontinued (during year ending June) 8/	3.3	2.9	3.4	4.5	5.6	3.2	1.7	1.3	1.4	1.3	1.5	1.7
Farm borrowers banks expect to discontinue (during year ending next June) 9/	4.4	2.0	3.1	5.7	6.7	2.1	1.5	1.7	1.5	1.6	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 8/	31.9	28.1	32.8	36.7	38.8	28.8	22.6	24.6	31.0	32.7	32.5	34.6
Farmers in bank lending area who went out of business (year ending June) 8/	2.2	2.3	3.6	4.8	6.2	4.6	2.8	2.4	2.2	2.4	2.4	3.1
Liquidation categories (sum equals 100%)												
Normal attrition	NA	37.7	31.3	27.7	28.9	38.4	50.2	58.5	63.8	54.3	60.5	NA
Voluntary liquidation	NA	42.4	44.0	44.3	41.7	35.8	30.6	27.6	25.6	30.4	28.0	NA
Legal foreclosure	NA	18.1	22.3	25.8	26.3	23.6	17.7	12.7	8.9	12.4	9.2	NA
Other	NA	1.8	2.4	2.2	3.1	2.3	1.6	1.2	1.7	3.0	1.3	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 8/	NA	NA	NA	1.5	2.2	1.4	0.7	0.4	0.3	0.3	0.4	0.5
Farmers in bank lending area who filed for bankruptcy (year ending in June) 8/	0.8	1.1	2.6	3.8	4.2	3.3	2.2	1.7	1.0	1.4	1.4	1.9

1/See footnotes at end of table

Continued--

Table C-1--Indicators of financial stress in agriculture as reported by agricultural banks, by region, 1982-93--Continued 1/

	Northeast 2/											
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 7/	Percent											
	3.4	3.5	5.3	6.9	6.9	2.9	1.4	1.9	1.6	2.5	1.5	1.8
Banks' farm borrowers who had bank financing discontinued (during year ending June) 8/	2.8	2.7	3.5	4.7	6.2	3.3	1.8	1.4	1.5	1.4	1.7	3.1
Farm borrowers banks expect to discontinue (during year ending next June) 9/	3.5	1.8	3.2	6.0	6.8	2.3	1.6	1.9	1.5	1.7	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 8/	26.1	26.7	30.1	34.4	37.1	28.3	20.1	22.2	28.1	26.3	26.1	30.5
Farmers in bank lending area who went out of business (year ending June) 8/	1.8	2.0	3.4	4.9	7.1	5.5	3.3	3.1	2.4	2.7	3.0	4.7
Liquidation categories (sum equals 100%)												
Normal attrition	NA	43.3	32.1	30.5	28.2	37.7	48.6	54.8	65.0	58.6	57.7	NA
Voluntary liquidation	NA	38.9	45.3	46.0	41.7	36.9	35.0	30.3	24.8	29.7	31.3	NA
Legal foreclosure	NA	15.8	20.7	21.9	26.3	23.4	15.4	13.1	8.9	10.8	10.5	NA
Other	NA	2.4	1.0	1.5	3.8	2.1	1.0	1.8	1.4	1.0	0.5	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 8/	NA	NA	NA	2.0	1.7	1.4	0.7	0.4	0.3	0.3	0.4	0.7
Farmers in bank lending area who filed for bankruptcy (year ending June) 8/	0.4	1.0	2.6	4.0	3.9	3.3	2.4	1.5	1.2	1.4	1.5	2.5

1/See footnotes at end of table

Continued--

Table C-1--Indicators of financial stress in agriculture as reported by agricultural banks, by region, 1982-93--
Continued 1/

	Corn Belt 3/											
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 7/	Percent											
	4.0	3.5	4.3	5.2	5.4	2.3	1.5	1.1	1.1	1.5	1.1	1.0
Banks' farm borrowers who had bank financing discontinued (during year ending June) 8/	2.8	2.5	3.0	3.8	4.8	2.9	1.5	1.1	1.1	1.1	1.1	1.4
Farm borrowers banks expect to discontinue (during year ending next June) 9/	4.2	1.5	3.0	5.3	5.5	1.6	1.6	1.1	1.0	1.4	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 8/	27.3	26.0	31.2	34.7	34.3	24.9	21.9	23.6	29.5	28.1	27.9	30.0
Farmers in bank lending area who went out of business (year ending June) 8/	1.9	2.2	3.6	4.6	5.5	4.1	2.7	2.2	2.1	2.3	2.1	2.8
Liquidation categories (sum equals 100%)												
Normal attrition	NA	39.5	35.8	29.9	33.8	43.0	58.7	65.6	70.5	59.5	66.3	NA
Voluntary liquidation	NA	38.6	40.1	42.3	36.9	33.6	26.3	25.1	20.7	28.1	26.2	NA
Legal foreclosure	NA	20.0	20.4	26.3	25.6	20.7	14.7	8.5	7.6	9.6	6.7	NA
Other	NA	1.7	3.1	1.5	3.7	2.6	0.4	0.7	1.2	2.7	0.8	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 8/	NA	NA	NA	1.4	2.1	1.5	0.7	0.3	0.3	0.2	0.2	0.3
Farmers in bank lending area who filed for bankruptcy (year ending in June) 8/	0.7	1.0	2.3	3.3	4.0	3.4	2.0	1.5	1.1	1.3	1.1	1.7

1/See footnotes at end of table

Continued --

Table C-1--Indicators of financial stress in agriculture as reported by agricultural banks, by region, 1982-93--
Continued 1/

	South 4/											
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 7/	Percent											
	4.6	4.3	4.0	4.2	5.2	3.0	1.3	1.3	.8	2.1	1.2	.7
Banks' farm borrowers who had bank financing discontinued (during year ending June) 8/	6.4	4.4	4.5	6.9	8.6	5.3	1.6	0.9	1.5	1.7	1.8	1.4
Farm borrowers banks expect to discontinue (during year ending next June) 9/	7.7	2.7	2.4	6.9	12.4	3.6	1.5	1.4	2.3	1.8	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 8/	49.0	40.5	45.9	47.4	49.7	38.4	28.7	27.6	43.4	42.1	40.0	40.4
Farmers in bank lending area who went out of business (year ending June) 8/	3.9	3.1	4.4	5.6	8.9	6.5	2.7	2.6	3.3	3.0	3.0	2.5
Liquidation categories (sum equals 100%)												
Normal attrition	NA	22.8	22.3	19.1	17.9	23.4	32.5	53.3	37.0	28.4	50.5	NA
Voluntary liquidation	NA	48.3	41.3	44.5	50.7	41.8	34.9	31.3	44.5	38.8	27.4	NA
Legal foreclosure	NA	25.8	31.4	34.2	28.3	31.6	29.9	14.2	16.1	24.7	13.6	NA
Other	NA	3.1	5.3	2.2	3.1	2.6	2.7	1.2	2.4	8.0	8.4	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 8/	NA	NA	NA	2.0	2.5	2.0	1.1	0.5	0.2	0.8	0.5	0.4
Farmers in bank lending area who filed for bankruptcy (year ending in June) 8/	0.1	1.9	4.9	5.7	6.5	5.9	3.3	2.0	1.2	2.3	1.8	1.6

1/See footnotes at end of table

Continued --

Table C-1--Indicators of financial stress in agriculture as reported by agricultural banks, by region, 1982-93--
Continued 1/

	Plains 5/											
	Percent											
1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Farm loan volume delinquent 30 days or more (June) 7/	3.7	3.5	4.1	4.4	6.6	2.9	1.9	1.7	1.4	1.4	1.0	1.0
Banks' farm borrowers who had bank financing discontinued (during year ending June) 8/	3.3	3.0	3.7	4.4	5.1	3.2	1.8	1.6	1.7	1.1	1.1	1.4
Farm borrowers banks expect to discontinue (during year ending next June) 9/	4.5	2.6	3.4	5.8	6.5	2.0	1.4	2.4	1.7	1.5	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 8/	31.9	27.0	30.1	35.1	39.8	29.5	22.6	26.3	29.8	39.3	36.5	38.7
Farmers in bank lending area who went out of business (year ending June) 8/	2.1	2.4	3.8	4.9	5.6	4.2	2.7	2.2	1.9	2.2	1.9	2.6
Liquidation categories (sum equals 100%)												
Normal attrition	NA	38.3	30.0	28.3	30.5	38.8	51.1	58.9	65.1	52.8	62.2	NA
Voluntary liquidation	NA	45.5	45.5	45.2	42.5	35.2	29.5	26.1	25.8	32.9	28.7	NA
Legal foreclosure	NA	15.1	23.2	23.9	24.7	23.9	16.5	13.8	7.6	11.4	8.8	NA
Other	NA	1.1	1.7	2.6	2.3	2.1	3.0	1.2	1.5	3.0	0.4	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 8/	NA	NA	NA	1.0	2.5	1.2	0.7	0.5	0.2	0.2	0.3	0.5
Farmers in bank lending area who filed for bankruptcy (year ending in June) 8/	0.8	0.9	2.3	3.7	3.9	2.6	2.0	1.9	0.8	1.3	1.1	1.6

1/See footnotes at end of table

Continued--

Table C-1--Indicators of financial stress in agriculture as reported by agricultural banks, by region, 1982-93--
Continued 1/

	West 6/											
	Percent											
1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	
Farm loan volume delinquent 30 days or more (June) 7/	5.0	4.5	5.0	8.0	5.2	3.2	2.3	1.6	1.4	3.0	2.0	1.4
Banks' farm borrowers who had bank financing discontinued (during year ending June) 8/	3.3	3.3	2.8	3.8	5.7	2.3	1.7	1.9	1.3	1.7	3.8	1.1
Farm borrowers banks expect to discontinue (during year ending next June) 9/	2.5	2.1	3.1	4.7	5.9	2.5	2.0	1.0	1.9	2.3	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 8/	40.9	32.1	39.5	43.8	44.4	34.8	25.0	26.3	35.7	31.7	42.0	40.4
Farmers in bank lending area who went out of business (year ending June) 8/	2.2	2.3	3.0	4.3	6.3	4.6	2.7	2.1	2.2	2.0	3.3	3.3
Liquidation categories (sum equals 100%)												
Normal attrition	NA	30.2	26.7	19.1	17.7	31.5	26.8	43.4	53.5	50.5	47.1	NA
Voluntary liquidation	NA	48.7	50.4	45.3	46.7	39.4	41.3	30.8	29.2	23.2	39.0	NA
Legal foreclosure	NA	19.4	19.6	20.3	33.2	28.0	29.7	24.0	12.3	22.0	13.5	NA
Other	NA	1.7	1.7	5.3	2.4	1.1	2.2	1.7	5.0	4.3	0.5	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 8/	NA	NA	NA	1.8	1.9	1.3	0.5	0.7	0.3	0.4	1.0	1.0
Farmers in bank lending area who filed for bankruptcy (year ending in June) 8/	0.5	1.2	2.3	3.5	3.5	3.0	2.0	2.1	1.3	1.2	2.9	2.8

NA = Not available. 1/ Data are unweighted averages of responses to the American Bankers Association's midyear farm credit survey, which uses a stratified random sample based on bank asset size and region. 2/ CT, DE, DC, ME, MD, MA, MI, MN, NH, NJ, NY, PA, RI, VT, WI. 3/ IL, IN, IA, MO, OH. 4/ AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV. 5/ KS, NE, ND, OK, SD, TX. 6/ AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY. 7/ Data for 1988 and 1989 are as of September 30 and data for 1991 and 1992 are as of December 31. 8/ Data for 1991, 1992, and 1993 are as of December 31. The 1993 figure is a forecast based on a survey taken in July. 9/ Data for 1991 are as of December 31 (farmers expected to discontinue farming during year ending December 31, 1992).

Sources: (3)

Figure C-1-American Bankers Association Farm Credit Situation Survey Regions

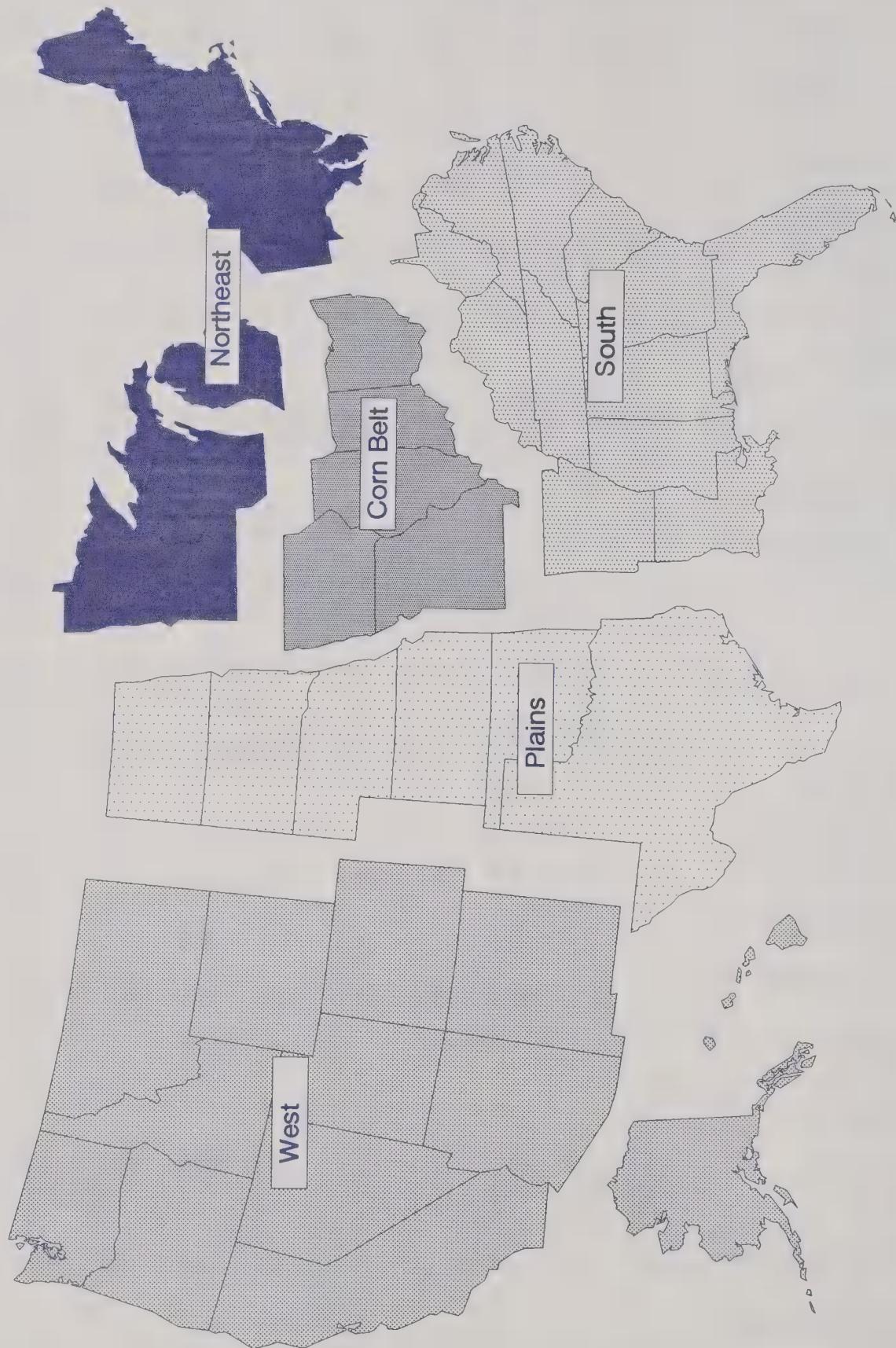


Table C-2--Indicators of financial stress in agriculture as reported by agricultural banks, by type of farming area, 1982-93 1/

	:	Feed & food crops											
		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 2/		Percent											
		4.0	3.5	4.4	5.3	6.6	2.7	1.6	1.3	1.3	1.6	1.2	1.2
Banks' farm borrowers who had bank financing discontinued (during year ending June) 3/		3.1	2.7	3.4	4.3	5.5	3.1	1.5	1.3	1.3	1.2	1.8	1.8
Farm borrowers banks expect to discontinue (during year ending next June) 4/		4.4	1.9	3.2	5.8	6.6	1.9	1.5	1.4	1.4	1.6	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 3/		34.5	27.2	33.9	33.0	39.2	27.5	22.3	25.9	30.5	31.7	32.2	34.4
Farmers in bank lending area who went out of business (year ending June) 3/		2.2	2.2	3.6	4.8	5.9	4.4	2.7	2.2	2.1	2.3	2.3	3.1
Liquidation categories (sum equals 100%)													
Normal attrition	:	NA	37.4	33.0	27.6	29.7	40.6	54.8	63.3	65.2	55.3	62.2	NA
Voluntary liquidation	:	NA	42.6	43.0	43.7	40.6	35.6	28.1	25.6	25.1	30.6	30.2	NA
Legal foreclosure	:	NA	18.4	21.8	26.7	26.6	22.0	16.3	10.6	8.1	11.0	7.2	NA
Other	:	NA	1.8	2.4	2.0	3.1	1.8	0.9	0.6	1.6	3.2	0.4	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 3/		NA	NA	NA	1.4	2.3	1.6	0.7	0.3	0.3	0.2	0.4	0.5
Farmers in bank lending area who filed for bankruptcy (year ending in June) 3/		0.7	1.0	2.2	3.6	4.3	3.5	2.0	1.6	1.0	1.4	1.4	2.0

1/See footnotes at end of table

Continued--

Table C-2--Indicators of financial stress in agriculture as reported by agricultural banks, by type of farming area, 1982-93-Continued 1/

	:	Dairy											
		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 2/		Percent											
		3.6	3.8	5.3	6.2	5.3	2.8	1.7	1.9	1.4	2.8	1.4	1.7
Banks' farm borrowers who had bank financing discontinued (during year ending June) 3/		3.4	3.1	3.2	5.4	5.4	2.9	1.8	1.4	1.4	1.5	0.9	1.5
Farm borrowers banks expect to discontinue (during year ending next June) 4/		4.4	1.9	2.7	5.4	5.8	1.9	1.7	2.0	1.3	1.8	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 3/		25.4	25.7	27.4	34.6	33.8	26.2	18.7	21.1	24.1	24.2	25.0	26.8
Farmers in bank lending area who went out of business (year ending June) 3/		1.8	2.6	3.5	4.8	7.3	5.1	3.2	3.2	2.5	2.9	3.4	3.9
Liquidation categories (sum equals 100%)													
Normal attrition	:	NA	41.3	31.8	32.0	29.6	41.5	47.7	53.7	64.0	52.6	59.3	NA
Voluntary liquidation	:	NA	39.1	44.2	45.3	41.2	34.5	34.8	31.2	24.9	32.3	26.3	NA
Legal foreclosure	:	NA	16.8	20.5	20.1	24.5	21.2	15.1	13.0	8.4	14.7	13.6	NA
Other	:	NA	2.5	2.4	2.6	4.7	2.8	2.5	2.1	2.7	0.4	0.8	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 3/		NA	NA	NA	2.2	1.4	1.1	0.9	0.5	0.4	0.4	0.4	0.5
Farmers in bank lending area who filed for bankruptcy (year ending in June) 3/		0.5	0.9	3.9	4.1	3.3	2.6	2.5	1.6	1.2	1.4	1.3	1.8

1/See footnotes at end of table

Continued--

Table C-2--Indicators of financial stress in agriculture as reported by agricultural banks, by type of farming area, 1982-93--Continued 1/

	:	Beef, cow-calf											
		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 2/		Percent											
		4.5	4.5	4.8	6.0	6.8	2.9	2.2	2.1	1.3	1.6	1.5	1.1
Banks' farm borrowers who had bank financing discontinued (during year ending June) 3/													
		2.9	3.9	3.1	3.4	5.8	3.8	1.5	1.7	1.2	1.0	1.1	2.1
Farm borrowers banks expect to discontinue (during year ending next June) 4/													
		4.0	2.4	3.3	5.8	7.9	2.7	1.5	3.2	1.3	1.5	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 3/													
		35.0	32.5	34.9	38.0	35.0	31.3	24.3	26.6	33.9	34.2	35.2	37.3
Farmers in bank lending area who went out of business (year ending June) 3/													
		2.3	2.4	3.5	4.9	6.4	4.7	2.5	2.6	2.3	2.0	2.1	3.3
Liquidation categories (sum equals 100%)													
Normal attrition		NA	32.4	28.0	28.9	26.9	32.9	10.9	48.7	60.2	57.2	61.8	NA
Voluntary liquidation		NA	48.5	46.6	41.8	42.4	34.9	31.4	28.2	26.4	27.4	24.4	NA
Legal foreclosure		NA	18.0	22.5	28.8	28.5	27.8	22.7	21.2	10.9	11.7	12.8	NA
Other		NA	1.8	1.1	0.5	2.1	4.4	5.0	1.9	2.5	3.8	1.0	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 3/		NA	NA	NA	1.3	1.4	1.3	0.6	0.7	0.2	0.3	0.4	0.9
Farmers in bank lending area who filed for bankruptcy (year ending in June) 3/		0.9	1.3	2.0	4.9	3.6	3.1	2.4	2.3	1.0	1.3	1.4	2.3

1/See footnotes at end of table

Continued--

Table C-2--Indicators of financial stress in agriculture as reported by agricultural banks, by type, of farming area 1982-93--Continued 1/

	:	Beef, feedlots											
		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 2/		Percent											
		3.4	3.7	4.5	6.7	4.3	2.5	0.8	1.2	1.3	0.6	0.8	0.9
Banks' farm borrowers who had bank financing discontinued (during year ending June) 3/													
		2.8	2.2	5.1	6.0	5.7	2.6	2.2	1.3	3.3	2.0	1.0	1.1
Farm borrowers banks expect to discontinue (during year ending next June) 4/													
		3.8	1.6	4.7	7.8	5.7	2.0	1.8	1.4	2.4	2.4	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 3/													
		37.9	27.8	43.4	40.1	42.6	31.6	24.7	28.1	36.7	37.7	40.2	42.2
Farmers in bank lending area who went out of business (year ending June) 3/													
		1.7	1.9	3.9	4.1	5.4	4.6	3.7	2.0	2.5	2.8	0.9	2.1
Liquidation categories (sum equals 100%)													
Normal attrition		NA	36.6	21.9	15.5	18.7	32.0	51.1	52.9	72.0	62.9	47.3	NA
Voluntary liquidation		NA	44.5	45.4	60.1	44.0	39.0	34.7	40.0	20.9	27.6	47.5	NA
Legal foreclosure		NA	18.3	30.7	22.0	34.8	27.9	14.3	7.1	6.1	8.3	4.6	NA
Other		NA	0.6	1.9	1.8	2.5	1.1	0.0	0.0	1.0	1.3	0.6	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 3/		NA	NA	NA	0.6	3.5	1.3	0.6	0.5	0.0	0.1	0.0	0.1
Farmers in bank lending area who filed for bankruptcy (year ending in June) 3/		0.4	0.5	3.1	2.1	6.1	2.6	2.3	1.9	0.5	1.1	0.3	0.7

1/See footnotes at end of table

Continued--

Table C-2--Indicators of financial stress in agriculture as reported by agricultural banks, by type of farming area, 1982-93--Continued 1/

	Hogs, other livestock											
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 2/	3.0	3.8	3.3	4.5	4.3	2.1	1.3	2.6	0.8	1.9	1.0	0.6
Banks' farm borrowers who had bank financing discontinued (during year ending June) 3/	2.8	2.6	2.7	3.8	3.9	2.7	0.9	1.7	1.2	0.8	0.3	1.5
Farm borrowers banks expect to discontinue (during year ending next June) 4/	7.1	3.7	2.9	4.7	4.2	2.0	1.2	1.9	1.0	1.6	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 3/	27.4	29.8	25.7	35.0	28.1	24.4	22.7	19.9	31.5	28.5	22.4	27.9
Farmers in bank lending area who went out of business (year ending June) 3/	1.6	1.9	3.5	4.5	4.8	3.4	2.1	2.4	2.2	1.8	1.9	3.8
Liquidation categories (sum equals 100%)												
Normal attrition	NA	44.9	31.1	21.6	36.3	37.9	41.4	55.8	74.3	73.0	58.4	NA
Voluntary liquidation	NA	38.7	49.5	51.9	42.9	35.9	45.7	28.8	10.7	16.7	34.4	NA
Legal foreclosure	NA	14.5	17.1	22.2	20.5	25.3	11.4	14.4	15.0	8.1	2.2	NA
Other	NA	0.6	2.3	4.4	0.3	1.0	1.4	1.1	0.0	2.2	5.0	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 3/	NA	NA	NA	1.9	0.9	0.8	0.3	0.3	0.1	0.1	0.0	0.5
Farmers in bank lending area who filed for bankruptcy (year ending in June) 3/	0.7	2.2	1.5	3.0	3.2	2.6	2.1	1.8	0.6	0.8	1.7	2.1

1/See footnotes at end of table

Continued--

Table C-2--Indicators of financial stress in agriculture as reported by agricultural banks, by type of farming area, 1982-93--Continued 1/

	Cotton											
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farm loan volume delinquent 30 days or more (June) 2/	5.2	3.9	6.5	4.1	4.6	2.3	1.4	1.0	0.9	2.8	1.5	0.8
Banks' farm borrowers who had bank financing discontinued (during year ending June) 3/	5.2	3.5	3.7	8.6	7.1	4.7	2.2	1.2	1.7	2.2	1.0	1.3
Farm borrowers banks expect to discontinue (during year ending next June) 4/	5.7	2.5	1.8	7.2	11.6	2.1	1.9	1.9	2.8	2.1	NA	NA
Banks' farm borrowers loaned-up to practical limit in June 3/	41.2	33.9	56.3	50.1	52.1	44.3	26.6	29.7	38.3	55.3	42.0	43.5
Farmers in bank lending area who went out of business (year ending June) 3/	4.8	2.8	3.0	6.7	8.1	5.3	3.1	2.1	3.2	3.4	3.3	3.0
Liquidation categories (sum equals 100%)												
Normal attrition	NA	26.4	19.3	18.2	17.2	22.6	48.4	56.0	45.8	20.3	43.8	NA
Voluntary liquidation	NA	53.6	53.7	50.1	47.2	36.7	27.6	28.8	42.4	52.8	39.4	NA
Legal foreclosure	NA	19.1	25.3	28.8	30.7	38.2	26.0	14.5	11.9	16.6	16.9	NA
Other	NA	0.3	1.7	2.9	4.9	2.5	0.9	0.8	0.0	10.3	0.0	NA
Banks' farm borrowers who filed for bankruptcy (year ending June) 3/	NA	NA	NA	1.6	4.8	2.0	1.3	0.9	0.3	1.3	0.4	0.6
Farmers in bank lending area who filed for bankruptcy (year ending in June) 3/	1.7	0.7	2.4	3.4	5.9	3.9	2.5	2.5	1.1	3.2	3.0	2.8

NA = Not available. 1/ Data are unweighted averages of responses to the American Bankers Association's midyear farm credit survey, which uses a stratified random sample based on bank asset size and region. Type of farming area criteria are based on the bankers' response for their market area indicating the type of farming in which most of their farm/agricultural borrowers are currently engaged. 2/ Data for 1988 and 1989 are as of September 30 and data for 1991 and 1992 are as of December 31. 3/ Data for 1991, 1992, and 1993 are as of December 31. The 1993 figure is a forecast based on a survey taken in July. 4/ Data for 1991 are as of December 31 (farmers expected to discontinue farming during the year ending December 31, 1992).

Sources: (3).

rules. The latter probably indicates a lag as financial problems ultimately leading to bankruptcy are worked out through time.

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Limiting Farm Program Payments: The Impact on Farm Sole Proprietors

by

Michael Compson¹

Abstract: During the past few years, several proposals have been made to limit farm program payments. One of these proposals would limit payments to individuals with nonfarm adjusted gross income less than \$100,000. Based on 1990 Internal Revenue Service estimates, only about 4 percent of the 703,000 farm sole proprietors reporting farm program payments would be affected by such a proposal. These returns accounted for slightly more than 4 percent of the \$6.2 billion in total payments reported by farm sole proprietors in 1990.

Keywords: Farm program payments, nonfarm adjusted gross income, farm sole proprietors

As the pressure to reduce Federal expenditures has risen over the past several years, agricultural program payments have frequently been mentioned as potential targets for budget cuts. In the recent past, several unsuccessful attempts were made to limit farm program payments to individuals with nonfarm adjusted gross income (NFAGI) less than \$100,000. In the current climate of increased public pressure and legislation requiring reductions in Federal expenditures, this proposal may resurface. This analysis estimates the impact of such a policy by evaluating the distribution of farm sole proprietors reporting farm program payments and the amount of payments by NFAGI and net farm profit (loss) status. Farm program payments are defined as gross agricultural payments reported on the Schedule F filed with the tax returns of farm sole proprietors (farmers).

The proposal for limiting farm program payments to individuals with NFAGI less than \$100,000 is based on a tax defined measure of income. NFAGI is adjusted gross income (AGI) minus farm profit (loss) reported on Schedule F. Given this, the most likely unit of analysis to determine eligibility would be the tax return. Current detailed information regarding farm program payments to farm corporations, partnerships, and sole proprietors is limited. This analysis uses Department of Treasury data that were generated from the 1990 IRS tax file, a sample of actual tax returns with weights to represent the taxpaying population. While the IRS tax data used in this analysis provide novel insight into the impact of such a policy, it is limited to farm sole proprietors filing tax returns. Due to this and other limitations (see box), IRS tax data should be used in conjunction with other data to fully analyze farm program limitation proposals. Other data include the Census of Agriculture and the USDA's Farm Costs and Returns Survey.

Program Payments by NFAGI

The Federal Government spent \$9.7 billion in farm income stabilization payments in 1990 (2, part five-26). Farm sole proprietors accounted for nearly two-thirds of the total amount of program payments, with farm partnerships and farm corporations receiving the remaining third. In 1990, 2.3 million individuals reported farm income or loss on a Schedule F filed with their tax returns. Approximately 703,000 farm sole proprietors (30 percent) reported receiving farm program payments totaling \$6.2 billion (table D-1). The average payment for all farm sole proprietors reporting payments was \$8,777. Farm sole proprietors reporting a profit accounted for nearly 58 percent of the returns reporting farm program payments and 74 percent of all program payments to farm sole proprietors (table D-2). The average program payment for farm sole proprietors reporting a profit was \$11,202. Farm sole proprietors reporting a loss represented 42 percent of the farmers reporting program payments and 26 percent of the amount of program payments these farmers reported. Their average payment was \$5,457 – considerably less than the \$11,202 for farmers reporting a profit.

Approximately 96 percent of the farm sole proprietors reporting farm program payments had NFAGI below the proposed \$100,000 threshold. These farmers reported nearly \$5.9 billion in payments or 96 percent of total farm program payments received by farm sole proprietors. Only about 29,000 of the returns reporting payments had NFAGI above the thresholds and, hence, would no longer be eligible for payments under the proposal. The average payment for those below the threshold was \$8,750 compared to \$9,379 for those above the threshold.

The proposal would reduce total expenditures on program payments to farm sole proprietors by approximately \$270 million. (This estimate assumes there is no response by individuals receiving payments to rearrange their finances to ensure continued eligibility for program payments.) How-

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Table D-1--Farm program payments reported on tax returns in 1990 by nonfarm adjusted gross income¹

Nonfarm adjusted gross income	Returns reporting farm income			Returns reporting farm loss			All returns		
	Returns reporting program payments	Amount of program payments reported	Average program payment	Returns reporting program payments	Amount of program payments reported	Average program payments	Returns reporting program payments	Amount of program payments reported	Average program payment
Thous. Dol.	Thous.	Mil.dol.	Dol.	Thous.	Mil.dol.	Dol.	Thous.	Mil.dol.	Dol.
Less than 0	61	815	13,361	18	186	10,333	79	1,001	12,671
0 - 10	107	1,498	14,000	36	199	5,528	143	1,697	11,867
10 - 25	125	1,038	8,304	84	529	6,298	210	1,567	7,462
25 - 50	74	892	12,054	94	328	3,489	168	1,220	7,262
50 - 75	22	135	6,136	32	128	4,000	55	263	4,782
75 - 100	6	70	11,667	13	80	6,154	19	150	7,895
100 - 125	4	37	9,250	9	88	9,778	13	125	9,615
125 - 150	1	11	11,000	3	16	5,333	4	27	6,750
150 - 175	1	7	7,000	1	8	8,000	2	15	7,500
175 - 200	1	16	16,000	*	*	*	1	16	16,000
200 - 225	1	2	2,000	1	3	3,000	1	5	5,000
225 - 250	1	3	3,000	*	*	*	1	4	4,000
250 - Above	3	24	12,000	5	56	11,200	7	80	11,429
Below 100	395	4,448	11,261	277	1,601	5,780	674	5,898	8,751
Above 100	11	100	9,091	19	119	6,263	29	272	9,379
Total ²	406	4,548	11,202	297	1,621	5,458	703	6,170	8,777

1/ Farm program payments consists of gross agriculture farm program payments reported on line 6A of Schedule F.

2/ Totals may not add due to rounding and confidentiality limitations.

* Not included for IRS confidentiality reasons.

Source: (1).

Table D-2--Distribution of farm program payments reported on tax returns in 1990 by nonfarm adjusted gross income¹

Nonfarm adjusted gross income	Returns reporting farm income		Returns reporting farm loss		All returns	
	Returns reporting program payments	Total program payments reported	Returns reporting program payments	Total program payments reported	Returns reporting program payments	Total program payments reported
---Percent---						
Less than 0	8.7	13.2	2.6	3.0	11.2	16.2
0 - 10,000	15.2	24.3	5.1	3.2	20.3	27.5
10,000 - 25,000	17.8	16.8	11.9	8.6	29.9	25.4
25,000 - 50,000	10.5	14.5	13.4	5.3	23.9	19.8
50,000 - 75,000	3.1	2.2	4.6	2.1	7.8	4.3
75,000 - 100,000	0.9	1.1	1.8	1.3	2.7	2.4
100,000 - 125,000	0.6	0.6	1.3	1.4	1.8	2.0
125,000 - 150,000	0.1	0.2	0.4	0.3	0.6	0.6
150,000 - 175,000	0.1	0.1	0.1	0.1	0.3	0.2
175,000 - 200,000	0.1	0.3	0.0	0.0	0.1	0.3
200,000 - 225,000	0.1	0.0	0.1	0.0	0.1	0.1
225,000 - 250,000	0.1	0.0	0.0	0.0	0.1	0.1
250,000 - Above	0.3	0.4	0.7	0.9	1.0	1.3
Below 100,000	56.2	72.1	39.4	25.9	95.9	95.6
Above 100,000	1.6	1.6	2.7	1.9	4.1	4.4
Total ²	57.8	73.7	42.2	26.3	100.0	100.0

1/ Farm program payments consists of gross agriculture farm program payments reported on line 6A of Schedule F.

2/ Totals may not add due to rounding and confidentiality limitations.

Source: (1).

ever, this may not represent the total budgetary impact since these payments would no longer be included in taxable income, reducing Federal tax revenues. The total budgetary impact depends on the response of the farm sole proprietors who become ineligible for payments under the proposal. Assuming there is no response to the change in eligibility and that ineligible farmers face an average marginal income tax rate of 20 percent, Federal tax revenues would decrease by \$54 million. Under these circumstances, the net affect of the program change on Federal expenditures and tax revenue would be approximately \$216 million in savings to the Federal Government.

Ninety-three percent of all payments were received by farmers with NFAGI below \$75,000 (table D-2). As such, even if the threshold was reduced to \$75,000, total payments would only be reduced by 7 percent. However, the number of farm sole proprietors affected would increase by two-thirds.

Interestingly, 6.3 percent of the returns reporting a loss would be affected by the proposal compared to only 2.7 percent for farm sole proprietors reporting a profit. This indicates a greater reliance on off-farm sources of income for those reporting a farm loss. The average payment for those reporting a profit that would be affected by the proposal is \$9,090 compared to \$6,263 for those reporting a loss.

Summary

Limiting farm program payments to individuals with NFAGI less than \$100,000 would only affect a small minority of the farm sole proprietors reporting farm program payments. Based on 1990 IRS tax data, the savings in farm program payments would also be very small, approximately \$272 million, only 4 percent of the total program payments. Not all of this would be directly translated into savings since these payments would no longer be included in adjusted gross income for tax purposes, reducing Federal income tax liabilities. Assuming no change in farm structure or operation as a result of ineligibility for program payments, the farm sole proprietors affected by the proposal would reduce their Federal tax liability by approximately \$54 million. Under these circumstances, the net budgetary savings of the proposal would be approximately \$216 million.

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The data used in the analysis were provided by the Department of Treasury and were generated from the 1990 IRS tax file. The IRS tax file is based on a sample of actual tax returns weighted to reflect the taxpaying population. The tax file is a unique source of data that provides detailed tax and income information. Given that the threshold to limit program payments is a tax defined measure of income, IRS data represent an important source for evaluating the potential impact of this proposal to limit farm program payments. The IRS data provide farm program payments by net farm income (profit) status, by nonfarm adjusted gross income (NFAGI), and by gross farm receipts.

While IRS tax data have the advantage of detailed information regarding the income base of potential limitation proposals, there are several drawbacks. The information is limited to individual farm sole proprietors, excluding other recipients, such as farm corporations and partnerships, from the analysis. A second limitation is that some recipients of farm programs may not have earned enough income to file a tax return. This limitation should only affect the total amount of payments reported and possibly the distribution of payments below the \$100,000 threshold and should not affect the number of returns affected by the proposal. A third shortcoming is related to confidentiality disclosure problems with public use IRS tax data. For confidentiality reasons, some individual cells within the distribution tables provided by the Treasury were left blank. However, the aggregate totals were correct. In addition, IRS data do not provide detailed information regarding either the type of farm or the type of farm program payments reported on the tax return. Nor is there a way to determine the impact of the policy on the number of acres involved in program payments. The Agricultural Census and the Farm Costs and Returns Survey provide much more detail concerning the type of farm receiving program payments and the type of payments received.

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Appendix table 1--Total farm debt, excluding operator households, December 31, 1976-93

Debt owed to reporting institutions						
Farm Credit System	Commercial banks	Farmers Home Adm.	Life insurance companies	Total	Individuals and others 1/	Total debt
Million dollars						
1976	29,007	28,077	4,963	6,828	68,874	27,191
1977	32,992	31,289	6,378	8,150	78,808	32,047
1978	37,564	34,435	8,833	9,698	90,529	36,871
1979	45,376	37,125	14,442	11,278	108,222	43,329
1980	52,974	37,751	17,464	11,998	120,188	46,636
1981	61,566	38,798	20,802	12,150	133,316	49,065
1982	64,220	41,890	21,274	11,829	139,214	49,592
1983	63,710	45,422	21,428	11,668	142,228	48,842
1984	64,688	47,245	23,262	11,891	147,086	46,701
1985	56,169	44,470	24,535	11,273	136,447	41,152
1986	45,909	41,621	24,138	10,377	122,044	34,926
1987	40,030	41,130	23,553	9,355	114,069	30,342
1988	37,138	42,706	21,852	9,018	110,714	28,654
1989	36,218	44,795	18,974	9,045	109,030	28,201
1990	35,567	47,425	16,950	9,631	109,573	27,794
1991	35,382	50,169	15,213	9,494	110,259	28,612
1992	35,616	51,571	13,504	8,718	109,410	29,860
1993P	35,556	53,739	12,211	8,521	110,028	31,327
Percent change in year						
1976	15.0	13.8	7.8	10.2	13.5	13.0
1977	13.7	11.4	28.5	19.4	14.4	17.9
1978	13.9	10.1	38.5	19.0	14.9	15.1
1979	20.8	7.8	63.5	16.3	19.5	17.5
1980	16.7	1.7	20.9	6.4	11.1	7.6
1981	16.2	2.8	19.1	1.3	10.9	5.2
1982	4.3	8.0	2.2	-2.6	4.4	1.1
1983	-0.8	8.4	0.7	-1.4	2.2	-1.5
1984	1.5	4.0	8.6	1.9	3.4	-4.4
1985	-13.2	-5.9	5.5	-5.2	-7.2	-11.9
1986	-18.3	-6.4	-1.6	-8.0	-10.6	-15.1
1987	-12.8	-1.2	-2.4	-9.8	-6.5	-13.1
1988	-7.2	3.8	-7.2	-3.6	-2.9	-5.6
1989	-2.5	4.9	-13.2	0.3	-1.5	-1.6
1990	-1.8	5.9	-10.7	6.5	0.5	-1.4
1991	-0.5	5.8	-10.2	-1.4	0.6	2.9
1992	-0.7	2.8	-11.2	-8.2	0.8	4.4
1993P	-0.2	4.2	-9.6	-2.3	0.6	4.9
Percentage distribution of total debt						
1976	30.2	39.2	5.2	7.1	71.7	28.2
1977	29.8	28.2	5.8	7.4	71.1	28.9
1978	29.5	27.0	6.9	7.6	71.1	28.9
1979	29.9	24.5	9.5	7.4	71.4	28.6
1980	31.8	22.6	10.5	7.2	72.0	28.0
1981	33.8	21.3	11.4	6.7	73.1	26.9
1982	34.0	22.2	11.3	6.3	73.7	26.3
1983	33.3	23.8	11.2	6.1	74.4	25.6
1984	33.4	24.4	12.0	6.1	75.9	24.1
1985	31.6	25.0	13.8	6.3	76.8	23.2
1986	29.2	26.5	15.4	6.6	77.7	22.3
1987	27.7	28.5	16.3	6.5	79.0	21.0
1988	26.6	30.6	15.7	6.5	79.5	20.5
1989	26.4	32.6	13.8	6.6	79.5	20.5
1990	25.9	34.5	12.3	7.0	79.8	20.2
1991	25.5	36.1	11.0	6.8	79.7	20.6
1992	25.6	37.0	9.7	6.3	78.6	21.4
1993P	25.2	38.0	8.6	6.0	77.8	22.2

P = Preliminary. 1/ Includes individuals and others (land for contract, merchants and dealers credit, etc.), CCC storage and drying facilities loans, and Farmer Mac loans.

Appendix table 2--Real estate farm debt, excluding operator households, December 31, 1976-93

Farm Credit System	Debt owed to reporting institutions					Individuals and others 1/	storage and drying facilities	CCC
	Farmers Home Adm.	Life insurance companies	Commercial banks	Total	Total			Total real estate
Million dollars								
1976	16,881	3,311	6,828	6,075	33,094	17,258	144	50,496
1977	19,640	3,613	8,150	6,994	38,397	19,556	492	58,445
1978	22,686	3,746	9,698	7,717	43,847	21,712	1,148	66,707
1979	27,322	6,254	11,278	7,798	52,653	25,660	1,391	79,704
1980	33,225	7,435	11,998	7,765	60,423	27,813	1,456	89,692
1981	40,298	8,096	12,150	7,584	68,128	29,318	1,342	98,788
1982	43,661	8,298	11,829	7,568	71,357	29,326	1,127	101,810
1983	44,318	8,573	11,668	8,347	72,906	29,388	888	103,182
1984	46,596	9,523	11,891	9,626	77,636	28,438	623	106,697
1985	42,169	9,821	11,273	10,732	73,994	25,775	307	100,076
1986	35,593	9,713	10,377	11,942	67,725	22,660	123	90,408
1987	30,646	9,430	9,355	13,541	62,972	19,380	46	82,398
1988	28,372	8,953	9,018	14,397	60,740	16,873	21	77,634
1989	26,674	8,130	9,045	15,551	59,400	15,939	12	75,351
1990	25,719	7,576	9,631	16,158	59,083	15,047	7	74,137
1991	25,160	7,001	9,494	17,315	58,970	15,623	4	74,597
1992	25,271	6,361	8,718	18,659	59,009	16,628	2	75,639
1993P	25,007	5,831	8,521	19,539	58,899	17,116	1	76,016
Percent change in year								
1976	16.2	8.8	10.2	8.1	12.6	9.5	-15.3	11.4
1977	16.3	9.1	19.4	15.1	16.0	13.3	241.7	15.7
1978	15.5	3.7	19.0	10.3	14.2	11.0	133.3	14.1
1979	20.4	67.0	16.3	1.0	20.1	18.2	21.2	19.5
1980	21.6	18.9	6.4	-0.4	14.8	8.4	4.7	12.5
1981	21.3	8.9	1.3	-2.3	12.8	5.4	-7.8	10.1
1982	8.3	2.5	-2.6	-0.2	4.7	0.0	-16.0	3.1
1983	1.5	3.3	-1.4	10.3	2.2	0.2	-21.2	1.3
1984	5.1	11.1	1.9	15.3	6.5	-3.2	-29.8	3.4
1985	-9.5	3.1	-5.2	11.5	-4.7	-9.4	-50.7	-6.2
1986	-15.6	-1.1	-7.9	11.3	-8.5	-12.1	-59.9	-9.7
1987	-13.9	-2.9	-9.8	13.4	-7.0	-14.5	-62.6	-8.9
1988	-7.4	-5.2	-3.6	6.3	-3.5	-12.9	-54.3	-5.8
1989	-3.6	-9.2	0.3	8.0	-2.2	-5.5	-42.9	-2.9
1990	-2.2	-6.8	6.4	3.9	-0.5	-5.6	-41.7	-1.6
1991	-0.6	-7.6	-1.4	7.2	-0.2	3.8	-42.9	0.6
1992	-0.4	-9.1	-8.2	7.8	0.1	6.4	-50.0	1.4
1993P	-1.0	-8.3	-2.3	4.7	-0.2	2.9	-50.0	0.5
Percentage distribution of debt								
1976	33.4	6.6	13.5	12.0	65.5	34.2	0.3	100.0
1977	33.6	6.2	13.9	12.0	65.7	33.5	0.8	100.0
1978	34.0	5.6	14.5	11.6	65.7	32.5	1.7	100.0
1979	34.3	7.8	14.2	9.8	66.1	32.2	1.7	100.0
1980	37.0	8.3	13.4	8.7	67.4	31.0	1.6	100.0
1981	40.8	8.2	12.3	7.7	69.0	29.7	1.4	100.0
1982	42.9	8.2	11.6	7.4	70.1	28.8	1.1	100.0
1983	43.0	8.3	11.3	8.1	70.7	28.5	0.9	100.0
1984	43.7	8.9	11.1	9.0	72.8	26.7	0.6	100.0
1985	42.1	9.8	11.3	10.7	73.9	25.8	0.3	100.0
1986	39.4	10.7	11.5	13.2	74.8	25.1	0.1	100.0
1987	37.2	11.4	11.4	16.4	76.4	23.5	0.1	100.0
1988	36.5	11.5	11.6	18.5	78.2	21.7	0.0	100.0
1989	35.4	10.8	12.0	20.6	78.8	21.2	0.0	100.0
1990	34.7	10.2	13.0	21.8	79.6	20.3	0.0	100.0
1991	33.7	9.4	12.7	23.2	79.1	20.9	0.0	100.0
1992	33.4	8.4	11.5	24.7	78.7	22.0	0.0	100.0
1993P	32.9	7.7	11.2	25.7	77.5	22.5	0.0	100.0

P = Preliminary 1/Including Farmer Mac loans.

Appendix table 3--Nonreal estate farm debt, excluding operator households, December 31, 1976-93

	Debt owed to reporting institutions						CCC crop loans
	Commercial banks	Farm Credit System	Farmers Home Adm.	Total	Individuals and others	Total nonreal estate	
	Million dollars						
1976	22,002	12,127	1,652	35,781	9,789	45,570	936
1977	24,295	13,352	2,764	40,411	11,999	52,410	4,146
1978	26,718	14,878	5,086	46,682	14,011	60,693	4,646
1979	29,327	18,054	8,188	55,569	16,278	71,847	3,714
1980	29,986	19,750	10,029	59,765	17,367	77,132	3,836
1981	31,215	21,268	12,706	65,189	18,404	83,593	6,888
1982	34,322	20,558	12,977	67,857	19,139	86,996	15,204
1983	37,075	19,392	12,855	69,322	18,566	87,888	10,576
1984	37,619	18,092	13,740	69,451	17,640	87,091	8,428
1985	33,738	14,001	14,714	62,453	15,070	77,523	17,598
1986	29,678	10,317	14,425	54,420	12,143	66,563	19,190
1987	27,589	9,384	14,123	51,096	10,916	62,012	15,120
1988	28,309	8,766	12,899	49,974	11,760	61,734	8,902
1989	29,243	9,544	10,843	49,631	12,250	61,881	5,225
1990	31,267	9,848	9,374	50,490	12,740	63,230	4,377
1991	32,854	10,222	8,213	51,289	12,985	64,274	3,579
1992	32,912	10,346	7,143	51,401	13,230	63,631	4,771
1993P	34,200	10,549	6,380	51,129	14,210	65,339	4,000
Percent change in year							
1976	15.5	13.5	5.9	14.3	16.8	14.8	303.4
1977	10.4	10.1	67.3	12.9	22.6	15.0	342.9
1978	10.0	11.4	84.0	15.5	16.8	15.8	12.1
1979	9.8	21.3	61.0	19.0	16.2	18.4	-20.1
1980	2.2	9.4	22.5	7.6	6.7	7.4	3.3
1981	4.1	7.7	26.7	9.1	6.0	8.4	79.6
1982	10.0	-3.3	2.1	4.1	4.0	4.1	120.7
1983	8.0	-5.7	-0.9	2.2	-3.0	1.0	-30.4
1984	1.5	-6.7	6.9	0.2	-5.0	-0.9	-20.3
1985	-10.3	-22.6	7.1	-10.1	-14.6	-11.0	108.8
1986	-12.0	-26.3	-2.0	-12.9	-19.4	-14.1	9.0
1987	-7.0	-9.0	-2.1	-6.1	-10.1	-6.8	-21.2
1988	2.6	-6.6	-8.7	-2.2	7.7	-0.5	-41.1
1989	3.3	8.9	-15.9	-0.7	4.2	0.2	-41.3
1990	6.9	3.2	-13.5	1.7	4.0	2.2	-16.2
1991	5.1	3.8	-12.4	1.6	1.9	1.7	-18.2
1992	0.2	1.2	-13.0	0.2	1.9	0.6	33.3
1993P	3.9	2.0	-10.7	-0.5	7.4	2.7	-16.2
Percentage distribution of debt							
1976	48.3	26.6	3.6	78.5	21.5	100.0	
1977	46.4	25.5	5.3	77.1	22.9	100.0	
1978	44.0	24.5	8.4	76.9	23.1	100.0	
1979	40.8	25.1	11.4	77.3	22.7	100.0	
1980	38.9	25.6	13.0	77.5	22.5	100.0	
1981	37.3	25.4	15.2	78.0	22.0	100.0	
1982	39.5	23.6	14.9	78.0	22.0	100.0	
1983	42.2	22.1	14.6	78.9	21.1	100.0	
1984	43.2	20.8	15.8	79.7	20.3	100.0	
1985	43.5	18.1	19.0	80.6	19.4	100.0	
1986	44.6	15.5	21.7	81.8	18.2	100.0	
1987	44.5	15.1	22.8	82.4	17.6	100.0	
1988	45.9	14.2	20.9	81.0	19.0	100.0	
1989	47.3	15.4	17.5	80.2	19.8	100.0	
1990	49.5	15.6	14.8	79.8	20.1	100.0	
1991	51.1	15.9	12.8	79.8	20.2	100.0	
1992	51.7	16.3	11.2	79.5	20.8	100.0	
1993P	52.3	16.1	9.8	78.3	21.7	100.0	

P = Preliminary

Appendix table 4--Interest rates on short-term loans, 1960-93

Year	Prime rate	6-Month T-Bill 1/	Agricultural Nonreal Estate						Average on out- standing debt 3/	
			Commercial banks			Farm Credit System	FmHA 2/			
			All banks	Large banks	Other banks		Regular	Limited resource		
Percent										
1960	4.82	NA	NA	NA	NA	NA	5.00	NA	6.12	
1965	4.54	NA	NA	NA	NA	NA	5.00	NA	5.97	
1970	7.91	6.87	NA	NA	NA	9.45	6.88	NA	7.45	
1975	7.86	6.39	NA	NA	NA	9.11	8.63	NA	7.83	
1980	15.27	12.39	15.20	16.70	15.00	12.74	11.00	6.82	11.11	
1981	18.87	15.06	18.50	19.80	18.10	14.46	14.04	8.13	12.66	
1982	14.86	11.96	16.70	16.10	17.00	14.58	13.73	10.75	12.61	
1983	10.79	9.27	13.50	12.10	14.10	11.95	10.31	7.31	11.51	
1984	12.04	10.46	14.10	13.10	14.40	12.47	10.25	7.25	11.25	
1985	9.93	8.09	12.80	11.20	13.40	12.40	10.25	7.25	10.13	
1986	8.33	6.30	11.50	9.60	12.10	11.23	8.66	5.66	10.18	
I	9.37	7.29	12.00	10.30	12.80	11.40	10.25	7.25	NA	
II	8.61	6.46	11.50	9.70	12.00	11.25	8.71	5.71	NA	
III	7.85	5.83	11.40	9.30	12.10	11.25	8.00	5.00	NA	
IV	7.50	5.63	10.80	8.90	11.50	11.00	7.67	4.67	NA	
1987	8.21	6.35	10.60	9.20	11.30	10.10	8.12	5.27	10.67	
I	7.50	5.78	10.10	8.40	11.20	10.10	7.50	4.50	NA	
II	8.05	6.30	10.70	9.40	11.20	10.00	7.50	4.50	NA	
III	8.40	6.49	10.40	9.30	11.10	10.00	8.75	5.57	NA	
IV	8.87	6.82	11.00	9.60	11.60	10.30	8.75	6.33	NA	
1988	9.32	7.27	11.20	10.20	11.60	10.56	9.02	6.02	10.50	
I	8.59	6.35	11.00	9.70	11.60	10.48	9.00	6.00	NA	
II	8.78	6.81	10.70	9.70	11.30	10.51	8.67	5.67	NA	
III	9.71	7.63	11.50	10.70	11.80	10.43	9.00	6.00	NA	
IV	10.18	8.27	11.60	11.10	11.80	10.82	9.42	6.42	NA	
1989	10.88	8.50	12.50	12.10	12.70	11.68	9.10	6.10	10.64	
I	10.98	9.09	12.30	12.10	12.40	11.63	9.40	6.40	NA	
II	11.36	8.86	12.90	12.80	13.00	12.11	9.50	6.50	NA	
III	10.66	8.12	12.50	12.00	12.80	11.55	9.00	6.00	NA	
IV	10.50	7.91	12.10	11.60	12.50	11.41	9.42	5.50	NA	
1990	10.01	7.87	11.40	10.90	12.30	11.16	8.90	5.82	10.76	
I	10.04	8.11	11.80	11.20	12.30	11.20	8.50	5.50	NA	
II	10.00	8.19	11.80	11.40	12.30	11.20	9.01	6.01	NA	
III	10.00	7.82	10.90	10.20	12.30	11.14	9.08	6.08	NA	
IV	10.00	7.36	11.50	11.00	12.20	11.10	9.00	5.67	NA	
1991	8.47	5.72	9.80	9.00	11.30	10.10	8.25	5.00	9.87	
I	9.19	6.34	10.40	9.60	11.60	10.59	8.50	5.00	NA	
II	8.67	5.98	9.80	9.10	11.50	10.25	8.25	5.00	NA	
III	8.40	5.74	10.10	9.40	11.50	10.02	8.25	5.00	NA	
IV	7.60	4.82	9.00	8.10	10.70	9.59	8.01	5.00	NA	
1992	6.25	3.69	7.80	6.80	9.40	8.20	6.79	5.00	8.59	
I	6.50	4.16	8.00	6.80	9.70	8.51	7.17	5.00	NA	
II	6.50	3.97	8.30	7.20	9.70	8.38	7.00	5.00	NA	
III	6.01	3.30	7.80	6.80	9.40	8.09	7.00	5.00	NA	
IV	6.00	3.34	7.40	6.30	8.90	7.81	6.00	5.00	NA	
1993	6.00	3.23	7.50	6.70	8.70	8.09	5.88	5.00	8.29	
I	6.00	3.20	7.60	6.60	8.80	8.35	6.33	5.00	NA	
II	6.00	3.19	7.50	6.70	8.90	8.15	6.00	5.00	NA	
III	6.00	3.22	7.50	7.00	8.60	8.08	5.75	5.00	NA	
IV	6.00	3.32	7.30	6.70	8.60	7.77	5.42	5.00	NA	

NA = Not Available. 1/ Auction average investment yield. 2/ New operating loans. Rates are weighted by length of time each was in effect. 3/ Average on outstanding farm business debt.

Appendix table 5--Interest rates on long-term loans, 1960-93

Year	Agricultural Real Estate								Average on total farm debt 5/	
	U.S. Treasury bond 1/	Commercial banks	Farm Credit System	Life insurance companies 2/	FmHA 3/		Average on outstanding debt 4/			
					Regular	Limited resource				
Percent										
1960	4.02	NA	NA	NA	5.00	NA	5.00	5.58		
1965	4.21	NA	NA	NA	5.00	NA	5.35	5.65		
1970	6.58	8.27	8.68	9.31	5.00	NA	5.88	6.58		
1975	7.00	9.02	8.69	10.03	5.00	NA	6.98	7.39		
1980	10.81	13.76	10.39	13.21	11.05	4.82	8.17	9.58		
1981	12.87	16.75	11.27	15.42	13.00	5.50	8.92	10.69		
1982	12.23	16.63	12.27	15.51	12.94	6.50	9.58	11.01		
1983	10.84	13.76	11.63	12.47	10.79	5.27	9.60	10.50		
1984	11.99	14.07	11.76	13.49	10.75	5.25	9.48	10.31		
1985	10.75	12.96	12.24	12.61	10.75	5.25	9.06	9.55		
1986	8.15	11.56	11.61	11.96	9.13	5.06	9.05	9.56		
I	8.90	12.20	11.90	12.78	10.75	5.25	NA	NA		
II	7.95	11.78	11.50	12.04	9.25	5.00	NA	NA		
III	7.89	11.30	11.10	11.80	8.25	5.00	NA	NA		
IV	7.84	10.94	11.95	11.20	8.25	5.00	NA	NA		
1987	8.64	11.07	11.10	10.21	8.90	5.00	8.96	9.73		
I	7.64	10.78	11.40	9.48	8.25	5.00	NA	NA		
II	8.58	11.02	10.90	9.97	8.25	5.00	NA	NA		
III	9.08	11.26	10.75	10.50	9.25	5.00	NA	NA		
IV	9.24	11.20	11.50	10.88	9.83	5.00	NA	NA		
1988	8.98	11.42	10.10	10.05	9.46	5.00	9.24	9.79		
I	8.61	11.04	9.88	10.13	9.50	5.00	NA	NA		
II	9.06	11.18	9.82	9.90	9.17	5.00	NA	NA		
III	9.20	11.60	10.06	10.08	9.50	5.00	NA	NA		
IV	9.03	11.84	10.56	10.70	9.67	5.00	NA	NA		
1989	8.59	12.08	10.93	10.47	9.46	5.00	9.52	10.02		
I	9.19	12.36	10.82	10.71	9.50	5.00	NA	NA		
II	8.84	12.18	11.01	10.54	9.17	5.00	NA	NA		
III	8.25	11.98	10.62	10.23	9.50	5.00	NA	NA		
IV	8.07	11.78	10.65	10.40	9.67	5.00	NA	NA		
1990	8.73	11.69	10.56	10.25	8.94	5.00	9.58	10.12		
I	8.60	11.74	10.62	9.62	8.75	5.00	NA	NA		
II	8.81	11.68	10.67	10.10	9.09	5.00	NA	NA		
III	8.91	11.72	10.49	10.30	9.08	5.00	NA	NA		
IV	8.61	11.60	10.45	10.97	9.00	5.00	NA	NA		
1991	8.16	10.76	9.85	10.01	8.73	5.00	8.93	9.36		
I	8.28	11.24	10.19	10.52	8.83	5.00	NA	NA		
II	8.39	11.04	9.96	9.99	8.75	5.00	NA	NA		
III	8.21	10.76	9.84	9.85	8.75	5.00	NA	NA		
IV	7.76	10.00	9.42	9.68	8.58	5.00	NA	NA		
1992	7.55	9.45	8.25	8.74	8.13	5.00	8.43	8.50		
I	7.73	9.72	8.43	9.09	8.25	5.00	NA	NA		
II	7.90	9.66	8.56	9.30	8.25	5.00	NA	NA		
III	7.22	9.22	8.13	8.59	8.25	5.00	NA	NA		
IV	7.34	9.18	7.86	7.97	7.75	5.00	NA	NA		
1993	6.45	NA	7.83	7.60	7.29	5.00	7.97	8.12		
I	6.90	8.88	8.20	7.34	7.75	5.00	NA	NA		
II	6.62	8.70	7.80	7.77	7.42	5.00	NA	NA		
III	6.15	8.56	7.79	7.65	7.25	5.00	NA	NA		
IV	6.14	NA	7.54	7.62	6.75	5.00	NA	NA		

NA = Not Available. 1/ Unweighted average of rates on all outstanding bonds neither due nor callable in less than 10 years. 2/ Estimated by ERS from survey data. 3/ New farm ownership loans. Rates weighted by length of time each of the various weights existing in the quarter were in effect. 4/ Average on outstanding farm business debt. Total farm debt includes both real and nonreal estate loans.

Appendix table 6--Commercial bank real estate lending by type of bank, June 30, 1993

Bank group	Commercial banks	Real estate loans/total loans 1/	Nonperforming real estate/total real estate 1/	Total nonperforming loans/total loans	Nonperforming real estate/nonperforming loans	Weak banks 2/
	No.		Percent			No.
All banks	11,140	42.8	3.41	2.61	55.9	38
Agricultural	3,819	45.1	1.39	1.43	43.8	5
Small nonagricultural	6,710	59.9	1.68	1.67	60.2	31
Large nonagricultural	611	38.7	4.17	2.89	55.7	2
Urban	4,981	41.3	3.75	2.76	56.1	34
Rural	6,159	53.8	1.56	1.49	54.1	4

1/ Ninety days past due and still accruing interest plus nonaccruals. 2/ Weak banks are banks with total nonperforming loans in excess of total capital.

Source: Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Appendix table 7--Banks reporting nonperforming loans greater than capital, 1984-93 1/

Year 2/	Agricultural banks		Nonagricultural banks		Total banks	
	Number	Pct.	Number	Pct.	Number	Pct.
1984	93	1.86	94	1.00	187	1.30
1985	141	2.91	130	1.38	273	1.91
1986	158	3.36	230	2.47	388	2.77
1987	84	1.88	241	2.67	325	2.41
1988	54	1.25	238	2.76	292	2.30
1989	31	0.74	181	2.14	212	1.68
1990	13	0.32	130	1.58	143	1.17
1991	13	0.33	107	1.35	120	1.01
1992	5	0.13	55	0.73	60	0.53
1993	5	0.13	33	0.45	38	0.34

1/ Loans past due 90 days or more and still accruing interest plus loans in nonaccrual status are considered nonperforming. Total capital includes total equity capital, allowance for loan and lease losses, minority interest in consolidated subsidiaries, subordinated notes and debentures, and total mandatory convertible debt. 2/ The 1993 numbers are as of June 30, all others are December 31.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

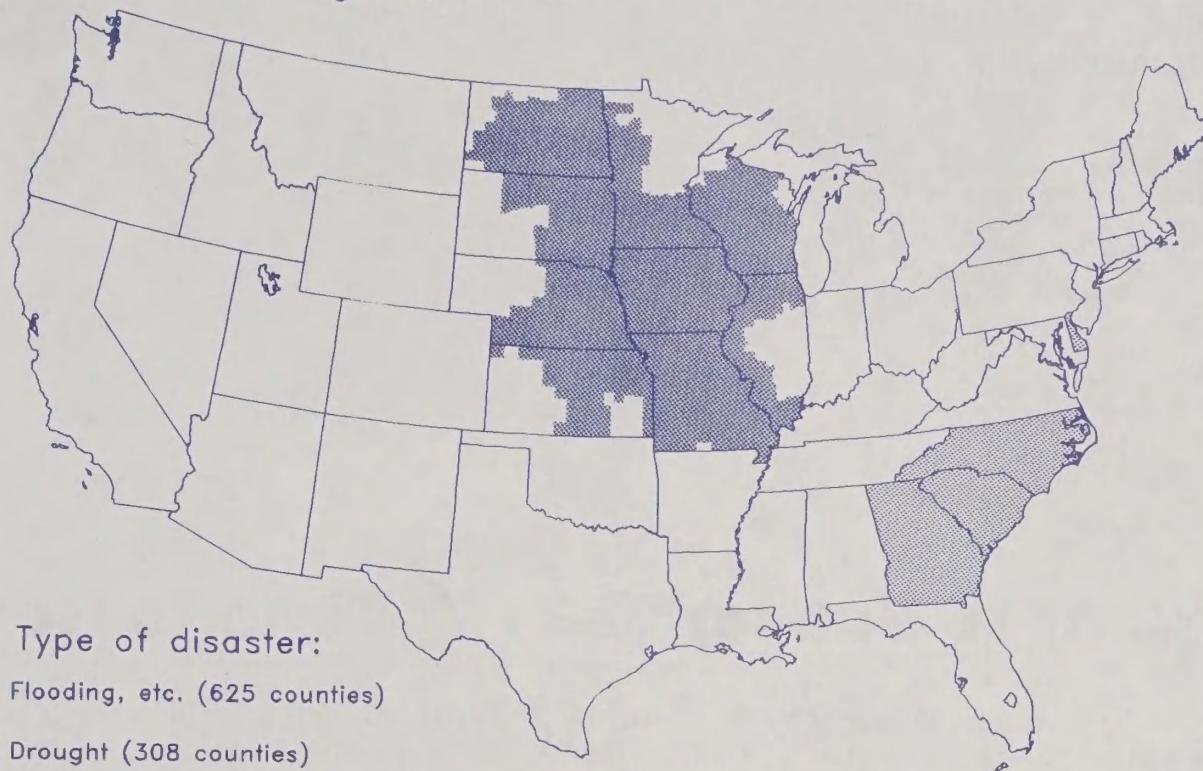
Appendix table 8--Commercial bank failures, 1981-93

Year	Agricultural banks		Nonagricultural banks		Total 1/ banks
	Number 2/	Pct. 3/	Number	Pct.	
1981	1	0.02	9	0.10	10
1982	10	0.19	23	0.25	33
1983	7	0.14	37	0.40	44
1984	31	0.62	47	0.50	78
1985	69	1.42	49	0.52	118
1986	66	1.41	78	0.84	144
1987	75	1.67	127	1.41	202
1988	41	0.95	180	2.09	221
1989	22	0.53	184	2.18	206
1990	18	0.44	141	1.76	159
1991	10	0.25	98	1.24	108
1992	7	.18	93	1.23	100
1993 4/	3	.08	33	.45	36
Total	360	NA	1,086	NA	1,446

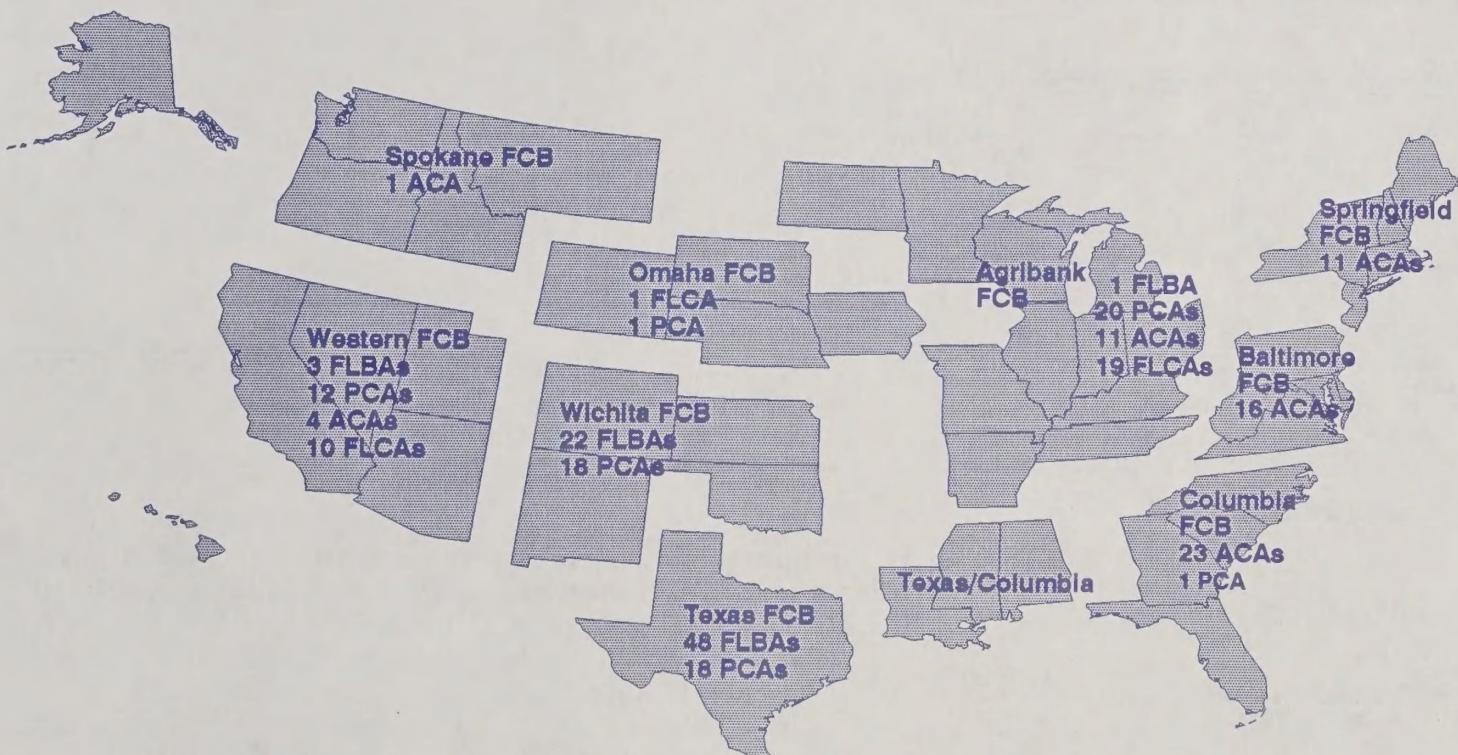
NA=Not available. 1/ Totals exclude mutual savings banks, savings and loan associations, commercial banks not insured by the FDIC, and banks headquartered in U.S. possessions and territories. Failures are those declared insolvent and closed by their chartering authorities plus those granted open bank assistance by the FDIC. 2/ Agricultural bank numbers are based on June month-end loan balances for the previous year. 3/ Failures as a percentage of total banks of this type. 4/ As a percentage of June 30, 1993 totals.

Sources: Calculated from information provided by the Federal Deposit Insurance Corporation and the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Appendix figure 1--Disaster strikes
 Midwest and Southeast: Disaster area
 counties, August, 1993



Appendix figure 2--Farm Credit Banks and Associations, January 1, 1994



Associations affiliated with the Texas FCB include 3 PCAs in New Mexico, 2 FLBAs in Alabama, 2 FLBAs and 1 PCA in Louisiana, and 2 FLBAs in Mississippi. Associations affiliated with the Western FCB include 1 PCA in Idaho.

Associations affiliated with Columbia include 1 ACA in Ohio, 2 ACAs in Kentucky, 1 ACA in Tennessee, 1 PCA serving Alabama, Mississippi, and most of Louisiana. The Spokane and Omaha districts plan to merge as of March 31, 1994.

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